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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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seq length: 2000000000
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        protein search, using sw model
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Match
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/cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US09C_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10C_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US10_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
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                 13 US-10-040-128-1
13 US-10-040-128-2
13 US-10-040-128-3
14 US-10-06-869-6
15 US-10-395-032-6
9 US-09-905-983-52
12 US-10-211-462-105
14 US-10-211-660-99
14 US-10-174-677-23
12 US-10-424-599-281094
12 US-09-925-298-530
12 US-10-188-186-28
12 US-10-188-186-28
12 US-09-764-853-673
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     US-10-282-122A-74566
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Sequence 1, Appli
Sequence 2, Appli
Sequence 3, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 105, Appl
Sequence 99, Appl
Sequence 28, Appl
Sequence 281094,
Sequence 530, App
Sequence 673, App
Sequence 673, Appl
Sequence 673, Appl
Sequence 74566, A
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US-10-040-128-1

GENERAL INFORMATION:

on

Sequence 1, Application US/10040128 Publication No. US20020160003A1

ALIGNMENTS

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APPLICANT: Liao, Fang
APPLICANT: Liao, Fang
APPLICANT: Hicklin, Daniel J.
APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects on TITLE OF INVENTION: Vascular Permeability
FILE REFERENCE: 11245/46976
CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
SOFTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 1
LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
OTHER INFORMATION: synthetic peptide
US-10-040-128-1
                                                                   RESULT 2
US-10-040-128-2
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                Sequence 2, Application US/10040128 Publication No. US20020160003A1 GENERAL INFORMATION:
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APPLICANT: Liao,
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                                                                                                                                                                                                           15;
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                                                                                                                                    DEIWNOMHIDEEKNE
                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                     100.0%; Score 86;
100.0%; Pred. No.
vative 0; Mismatch
                                                                                                                                                                        15
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                                                                                                                                                                                                                                           DB 13;
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; OTHER INFORMATION: synthetic peptide
US-10-040-128-2
                                                                                                                                                                                                                                                            US-10-006-869-6
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CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
SOFTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 2
              GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.40727
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
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Best Local Similarity
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SEQ ID NO 3
LENGTH: 15
TYPE: PRT
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Best Local Similarity
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                                                                                                                                                                                                                  Sequence 6, Application US/10006869 Publication No. US20030082166A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Liao, Fang
APPLICANT: Hicklin, Daniel J.
APPLICANT: Hicklin, Daniel J.
APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects
TITLE OF INVENTION: Vascular Permeability
FILE REFERENCE: 11245/46976
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects on
TITLE OF INVENTION: Vascular Permeability
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
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SOFTWARE: PatentIn Ver. 2.0
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ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE: OTHER INFORMATION: synthetic peptide
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Pred. No. 0.00012;
0; Mismatches 1
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                                                                                                                         ; SEQ ID NO 52
; LENGTH: 784
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-905-983-52
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LENGTH: 108
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Publication No. US2003022919A1
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                                                                                                                                                                                                 APPLICANT: Ben-Ze'ev, Avri
APPLICANT: Sadot, Einat
TITLE OF INVENTION: METHODS AND THERAPEUTIC COMPOSITIONS FOR TREATING CANCER
FILE REFERENCE: 01/23326
CURRENT APPLICATION NUMBER: US/09/905,983
CURRENT FILING DATE: 2001-09-28
NUMBER OF SEQ ID NOS: 60
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin version 3.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS FILE REFERENCE: 100086.407C9
CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT FILING DATE: 2003-03-21
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew APPLICANT: Gour, Barbara J.
                                                                                                                                                                                                                                                                                                                               APPLICANT: Geiger, Benjamin
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TYPE: PRT
ORGANISM: Homo sapiens
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Local Similarity 92.9%;
les 13; Conservation
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                                                                            Local Similarity
48
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13; Conserv
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                               1 DEIWNOMHIDEEKN 14
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92.9%;
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92.9%;
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Pred. No.
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Pred. No. 0.00092;
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Pred. No.
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                                                                              0.0072;
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0.00092;
                                                                                           DB 9; Length 784;
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; SEQ ID NO 99
; LENGTH: 784
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-021-660-99
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                                                               Query Match
Best Local
                                            Matches
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Publication No. US20030152926A1
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                                                                                                                                                                                                                                                                                                                                 APPLICANT: Murray, Richard
APPLICANT: Glynne, Richard
APPLICANT: Watson, Susan R.
APPLICANT: Watson, Susan R.
APPLICANT: BOS Biotechnology, Inc.
APPLICANT: BOS Biotechnology, Inc.
APPLICANT: BOS Biotechnology, Inc.
TITLE OF INVENTION: No. US20030152926Alel Methods of Diagnosis of Anglogenesis,
TITLE OF INVENTION: Modulators
FILE REFERENCE: 018501-000710US
CURRENT APPLICATION NUMBER: US/10/021,660
CURRENT FILING DATE: 2001-12-06
CURRENT FILING DATE: 2001-12-06
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Best Local Similarity
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PRIOR FILING DATE: 2000-08-11
NUMBER OF SEQ ID NOS: 135
SOFTMARE: FastSEQ for Windows Version 3
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                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: US/09/784,356
PRIOR FILING DATE: 2001-02-14
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APPLICANT: Glynne, Richard
APPLICANT: Watson, Susan I
APPLICANT: Aziz, Natasha
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NUMBER OF SEQ ID NOS: 230
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PRIOR FILING DATE: 2001-11-29
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRIOR FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: US 60/310,025
PRIOR FILING DATE: 2001-08-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CURRENT APPLICATION NUMBER: US/10/211,462
CURRENT FILING DATE: 2003-02-13
PRIOR APPLICATION NUMBER: US 09/784,356
PRIOR FILING DATE: 2001-02-14
PRIOR APPLICATION NUMBER: US 09/791,390
PRIOR FILING DATE: 2001-02-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis, Compositions and
TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
FILE REFERENCE: 018501-00620005.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LENGIH: 784
                                                             Local
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                                      l Similarity
13; Conserva
1 DEIWNQMHIDEEKN 14
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                                        Conservative
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                                                         84.9%;
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                                    Score 73; DB 14; Length 784; Pred. No. 0.0072; 0; Mismatches 1; Indels
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Pred. No.
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0.0072;
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US-09-925-298-530
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US-10-424-599-281094
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US-10-174-677-23
                             Sequence 530, Application US/09925298
Publication No. US20020039764A1
GENERAL INFORMATION:
APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
FILE REFERENCE: PA103
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CURRENT FILING DATE: 2003-04-28
NUMBER OF SEQ ID NOS: 285684
SEQ ID NO 281094
LENGTH: 95
TYPE: PRT
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APPLICANT: La Rosa Thomas
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SEQ ID NO 23
LENGTH: 784
TYPE: PRT
                                                                                                                                                                                                                                                                                                                  Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 281094, Application US/10424599 Publication No. US20040031072A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 23, Application US/10174677 Publication No. US20030190704A1
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TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR ANCHORING STEM CELLS IN A MICROENVIF
FILE REFERENCE: 40716 (IP-012)
CURRENT APPLICATION UNUMER: US/10/174,677
CURRENT FILING DATE: 2002-06-19
MUMBER OF SEQ ID NOS: 117
MUMBER OF SEQ ID NOS: 117
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CURRENT APPLICATION NUMBER: US/09/925,298
CURRENT FILING DATE: 2001-08-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Kovalic David K
APPLICANT: Zhou Yihua
APPLICANT: Zhou Yihua
APPLICANT: Cao Yongwei
TITLE OF INVENTION: Soy Nucleic Acid Molecules and Other Molecules Associated With
TITLE OF INVENTION: Plants and Uses Thereof for Plant Improvement
FILE REFERENCE: 38-21(53223)B
                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
OTHER INFORMATION: Clone ID: PAT_MRT3847_9584C.1.pep
                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Glycine max
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Pred. No. 13;
4; Mismatches
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Pred. No. 0.0072;
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Matches
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SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 530
LENGTH: 183
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LENGTH: 183
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Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT APPLICATION NUMBER: US/10/102,806
CURRENT FILING DATE: 2002-03-22
PRIOR APPLICATION NUMBER: 09/925,298
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: PCT/US00/05881
PRIOR APPLICATION NUMBER: 60/124,270
PRIOR APPLICATION NUMBER: 60/124,270
                                                                                                                                                                                                                                                                                                                                                  PRIOR FILING DATE: 1999-03-12
NUMBER OF SEQ ID NOS: 846
SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
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OTHER INFORMATION: Xaa equals
NAME/KEY: SITE
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OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
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NAME/KEY: SITE
                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo
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                                                                                                 LOCATION: (80)
OTHER INFORMATION:
NAME/KEY: SITE
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LOCATION: (6)
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                                                                  LOCATION: (81)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
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                                                                                                                                                                       OTHER INFORMATION:
                                                                                                                                                                                  NAME/KEY: SITE LOCATION: (79)
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Pred. No.
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US-09-764-853-673
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US-10-188-186-28
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PRIOR FILING DATE: 2001-09-07
PRIOR APPLICATION NUMBER: 60/32380
PRIOR FILING DATE: 2001-09-19
PRIOR APPLICATION NUMBER: 60/361133
PRIOR APPLICATION NUMBER: 60/304016
PRIOR FILING DATE: 2001-07-09
PRIOR FILING DATE: 2001-07-09
PRIOR FILING DATE: 2001-07-09
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LENGTH: 192
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                                                                     SOFTWARE: Pa
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CURRENT FILING DATE: 2002-07-02
PRIOR APPLICATION NUMBER: 60/303046
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SOFTWARE: Custom
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PRIOR APPLICATION NUMBER: 60/360814
PRIOR FILING DATE: 2002-03-01
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                                                                                                     CURRENT APPLICATION NUMBER: US/09/764,853
CURRENT FILING DATE: 2001-01-17
Prior application data removed - consult PALM
NUMBER OF SEQ ID NOS: 939
                                                                                                                                                                                APPLICANT: Rosen et al.
TITLE OF INVENTION: Nucleic Acids, Proteins,
FILE REFERENCE: PJZ06
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               TYPE: PRT ORGANISM: Homo sapiens
FEATURE:
                                                       LENGTH: 193
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FILING DATE: 2001-07-11
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Similarity 40.0%;
6; Conservative
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; ORGANISM: Streptococcus pyogenes US-10-282-122A-74566
                                                                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/20,30,335
PRIOR FILING DATE: 2000-05-23
PRIOR PRIOR PELICATION NUMBER: 60/206,848
PRIOR FILING DATE: 2000-05-26
PRIOR APPLICATION NUMBER: 60/207,727
PRIOR APPLICATION NUMBER: 60/230,335
PRIOR APPLICATION NUMBER: 60/230,335
PRIOR APPLICATION NUMBER: 60/230,347
PRIOR FILING DATE: 2000-09-06
PRIOR APPLICATION NUMBER: 60/242,578
PRIOR PILING DATE: 2000-10-23
PRIOR APPLICATION NUMBER: 60/243,625
PRIOR APPLICATION NUMBER: 60/253,625
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR APPLICATION NUMBER: 60/267,636
PRIOR FILING DATE: 2000-12-2
PRIOR APPLICATION NUMBER: 60/267,636
PRIOR RELING DATE: 2001-02-16
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US-10-282-122A-74566
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Best Local Similarity
Grandes 6; Conserve
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SOFTWARE: PatentIn version 3.1
SEQ ID NO 74566
  Query Match 52.3%; Score 45, DB Best Local Similarity 42.9%; Pred. No. 85; Matches 6; Conservative 5; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Wang, Li
APPLICANT: Zamudio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 74566, Application US/10282122A Publication No. US20040029129A1
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APPLICANT:
APPLICANT:
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                                                                                                                                    LENGTH: 418
TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: Identification of Essential Genes in Microorganisms FILE REFERENCE: ELITRA.034A CURRENT APPLICATION NUMBER: US/10/282,122A CURRENT FILING DATE: 2003-02-20 CURRENT FILING DATE: 2003-02-20
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LOCATION:
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LOCATION: (103)
OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
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Yamamoto, Robert
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Zyskind, Judith
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Malone, Cheryl
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Pred. No.
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26;
                                         DB 12; Length 418;
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Search completed: July 29, 2004, 11:50:32 Job time : 38.3333 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Match Length
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1: /cgn2_6/ptodata/2/iaa/5A_COMB.pep:*

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US-09-187-859-6
US-09-335-852-6
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US-08-332-633-40
US-08-332-633-50
US-08-332-638-50
US-08-332-638-50
US-09-431-10-72-094-9
US-10-072-094-9
US-10-072-094-9
US-10-072-094-9
US-10-072-094-9
US-09-570-921-5
US-09-571-90-14
US-09-571-976-4783
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US-09-131-469A-5
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US-08-965-056-85
US-09-839-535-852-13
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US-09-187-859-6
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ALIGNMENTS

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Perfect score:

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; Sequence 6, Application US/09187859A
; Patent No. 6358920
; GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN -MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOCTWARE: Patentin Ver. 2.0
SEQ ID NO 6
LENGTH: 108
TYPE: PRT
ORGANISM: Homo sapiens
; LENGTH: 108
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-839-542B-6
                                                                SOFTWARE: PatentIn Ver.
SEQ ID NO 6
LENGTH: 108
                                                                                                                                                                                                                                                                                                                                                                                Sequence 6, Application US/09839542B Patent No. 6569996 GENERAL INFORMATION:
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Best Local Similarity
                                                                                                                                        APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407D1
CURRENT APPLICATION UNMERR: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
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Pred. No. 0.00025;
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US-09-535-852-6
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US-08-188-228-50
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Patent No. 6638911
GENERAL INFORMATION:
APPLICANT: Blachnuk, Orest W.
APPLICANT: Symonds, James M.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/535,852
CURRENT FILING DATE: 2001-05-21
NUMBER OF SEQ ID NOS: 2009
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
LENGTH: 108
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Matches 13; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Suzuki
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/049,460
FILING DATE: 19 APR 1993
PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 07/872,643
FILING DATE: 17 APR 1992
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5597725and, Greta E.
REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Suzuki, Shintaro
TITLE OF INVENTION: CADHERIN
NUMBER OF SEQUENCES: 62
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/188,228
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                                                                                                                                                                             FILING DATE:
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Pred. No. 0.00025;
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; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-188-228-50
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US-08-332-643-44
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                                                         ; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: prot
US-08-332-643-44
                                                                                                      TELEFAX: (312) 984-9740
TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 44
SEQUENCE CHARACTERISTICS:
LENGTH: 780 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 44, Applicat Patent No. 5639634
GENERAL INFORMATION:
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Best Local Similarity
Query Match 84.9
Best Local Similarity 92.9
Matches 13; Conservative
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
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LENGTH: 780 amino aci
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                     TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 346-5750
                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: NO. 5639634and, Greta
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27
                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/07/872,643
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                ELECUTAL: (312) (312)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEPHONE: (314) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STREET:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CITY: Chicago
STATE: Illinois
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                               FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ZIP: 60603
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13;
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92.9%;
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                84.9%;
92.9%;
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Pred. No. 0.0022;
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   0;
 Score 73; DB 1;
Pred. No. 0.0022;
0; Mismatches
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DEIWNQMHIDEEKN 14

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DWIWNQMHIDEEKN

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US-08-332-638-50

Sequence 50, App...

Application US/08332638

GENERAL INFORMATION:

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US-09-134-000C-6641
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                                                                                                                                                                                                            Sequence 6641, Application US/09134000C Patent No. 6617156
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: ENTEROCOCCUS FAECALIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 032796-032
CURRENT APPLICATION NUMBER: US/09/134,000C
CURRENT APPLICATION NUMBER: US/09/134,000C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/055,778
PRIOR FILING DATE: 1997-08-15
NUMBER OF SEQ ID NOS: 6812
NUMBER OF SEQ ID NOS: 6812
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 50:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NAME: No. 5646250and, Greta E
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 3134
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEPAX: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTMARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/872,643
FILING DATE: 17 APR 1992
APPLICATION NUMBER: US/08/049,460
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUMBER OF SEQUENCES: 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Suzuki, TITLE OF INVENTION:
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CITY: Chicago
STATE: Illinoi
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Similarity 92.9%;
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                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
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Pred. No. 0.0022;
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DEIWNOMH 8

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Query Match
Best Local Similarity
Yatches 5; Conserve
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Best Local Similarity
Thes 5; Conserve
                                                                           US-10-072-094-8
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT; ORGANISM: Mus sp. US-09-637-145-4
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                                                                                                                                                                                                                                         GENERAL INFORMATION:

APPLICANT: JACKSON, DONALD

APPLICANT: LORENZI, MATTHEW

APPLICANT: ATTAR, RICARDO

APPLICANT: GOTTARDIS, MARCO

TITLE OF INVENTION: MOVEL HUMAN HISTONE PEPTIDES

FILE REFERENCE: 3053-4145US1
                                                                                                                                    SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: EVANS, RONALD M.
APPLICANT: KAO, HUNG-YING
APPLICANT: DOWNES, MICHAEL
APPLICANT: DOWNES, MICHAEL
APPLICANT: ORDENTLICH, PETER
TITLE OF INVENTION: NOVEL HISTONE DEACETYLASE, AND USES THEREFOR
                                                                                                                                                                                                                                                                                                                                                  Patent No. 660035
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn Ver. 2.1 SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 6641
LENGTH: 747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sequence 4, Application US/09637145
Patent No. 6673587
                                                                                                                                                               CURRENT APPLICATION NUMBER: US/10/072,094
CURRENT FILING DATE: 2002-06-14
PRIOR APPLICATION NUMBER: 60/298,296
PRIOR FILING DATE: 2001-06-14
NUMBER OF SEQ ID NOS: 127
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/637,145
CURRENT FILING DATE: 2000-08-11
NUMBER OF SEQ ID NOS: 4
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILE REFERENCE: SALK3000
                                                                                      ORGANISM: Homo sapiens
                                                                                                      TYPE: PRT
                                                                                                                      LENGTH: 1122
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                 Conservative
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38.5%;
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           Score 40; Db 4; Pred. No. 4.2e+02;
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Pred. No. 4.1e+02;
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Pred. No.
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cches 3;
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                                       Length 1122;
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            Indels
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DTVWNEMH 796

APPLICANT:

Andrew C. Braisted

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GENERAL INFORMATION:
APPLICANT: JACKSON, DONALD
APPLICANT: JACKSON, DONALD
APPLICANT: LORENZI, MATTHEW
APPLICANT: ATTAR, RICARDO
APPLICANT: GOTTARDIS, MARCO
TITLE OF INVENTION: NOVEL HUMAN HISTONE PEPTIDES
FILE REFERENCE: 3053-4145US1
CURRENT APPLICATION NUMBER: US/10/072,094
CURRENT FILING DATE: 2002-06-14
PRIOR APPLICATION NUMBER: 60/298,296
PRIOR FILING DATE: 2001-06-14
NUMBER OF SEQ ID NOS: 127
SOFTWARE: PATENTIN VET: 2.1
SSEQ ID NO 91
TENCTUP. 1122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT 10
US-10-072-094-91
                                                                                                                                                                                                                                                                                                              LENGTH: 138
; TYPE: PRT
; ORGANISM: Human
US-09-570-921-5
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US-09-570-921-5
US-08-965-056-87

Sequence 87, Application US/08965056

; Patent No. 6271198

; GENERAL INFORMATION:
                                                                                  RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: SERRES, PIERRE-FRANCOIS
APPLICANT: SERRES, PIERRE-FRANCOIS
TITLE OF INVENTION: METHOD FOR OBTAINING VACCINES FOR PREVENTING THE
TITLE OF INVENTION: PATHOGENIC EFFECTS RELATED TO A RETROVIRAL INFECTION
FILE REFERENCE: 106213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 91, Appl Patent No. 660035
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Patent No. 6455265
                                                                                                                                                                                                                              Query Match
Best Local Similarity
Matches 10; Conserv
                                                                                                                                                                                                                                                                                                                                                                                              SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                   CURRENT FILING DATE: 2000-05-15
PRIOR REPLICATION NUMBER: US/09/570,921
CURRENT FILING DATE: 2000-05-15
PRIOR REPLICATION NUMBER: ECT/FR98/02447
PRIOR REPLICATION NUMBER: FR/97/14387
PRIOR APPLICATION NUMBER: FR/97/14387
PRIOR FILING DATE: 1997-11-17
NUMBER OF SEQ ID NOS: 144
NUMBER OF SEQ ID NOS: 144
                                                                                                                                                                                                                                                                                                                                                                                                                      SOFTWARE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LENGTH: 1122
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Local Similarity 62.5%;
hes 5; Conservative
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                                                                                                                                                DDIWNNMTWMQWEKEISNYTGIIYNLIEESQIQQEKNE 118
                                                                                                                                                                                       DEIWNOM-----
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                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                    45.9%;
                                                                                                                                                                                                                                   Score 39.5; DI
Pred. No. 51;
2; Mismatches
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Pred. No. 4.2e+02;
2; Mismatches 1
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                                                                                                                                                                                                                                                                            DB 4;
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В
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; OTHER INFORMATION: HIV-1 (Mal) US-09-257-490-14
                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 14, Application US/09257490A Patent No. 6248328
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                              SEQ ID NO 14
                                                                                                                                         APPLICANT: Dietrich, Ursula
APPLICANT: Von Briesen, Hagen
APPLICANT: Grez, Manuel
APPLICANT: Rubsamen-Waigmann, Helga
APPLICANT: Rubsamen-Waigmann, Helga
TITLE OF INVENTION: HIV-1 virus isolates of a subtype and its differential
TITLE OF INVENTION: diagnostics, a vaccine against HIV-1 virus infections
TITLE OF INVENTION: of this subtype and method of producing same, use of
TITLE OF INVENTION: the HIV-1 virus isolates
TITLE OF INVENTION: the HIV-1 virus isolates
TITLE REFERENCE: 10496/P58512US1
CURRENT APPLICATION NUMBER: US/09/257,490A
CURRENT FILING DATE: 1999-02-25
NUMBER OF SEQ ID NOS: 15
SOFTMARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TELEFAX: 650/952-9881 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
APPLICANT:
APPLICANT:
                                                  LENGTH: 613
TYPE: PRT
ORGANISM: Human immunodeficiency virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NAME: Torchia, PhD., Timothy E. REGISTRATION NUMBER: 36,700 REFERENCE/DOCKET NUMBER: P1005R: TELECOMMUNICATION INFORMATION: TELEPHONE: 650/225-8674
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 inch, 1.44 Mb floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: WinPatin (Genentech)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                           FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE CHARACTERISTICS:
LENGTH: 198 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ATTORNEY/AGENT INFORMATION: NAME: Torchia, PhD., Tim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: WinPatin (Ge
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CORRESPONDENCE ADDRESS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Constrained TITLE OF INVENTION: Making Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/965,056 FILING DATE: 05-No. 6271198-1997 CLASSIFICATION: 530
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                     INFORMATION:
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Robert S. McDowell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               James A. Wells
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Pred. No. 75;
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APPLICANT: M. Gun-Liang
APPLICANT: Pilgrim, Marsha
APPLICANT: Pilgrim, Marsha
APPLICANT: Jang, Cai-Zhong
APPLICANT: Reuber, Lynne
ITILE OF INVENTION: DISEASE-INDUCED POLYNUCLEOTIDES
FILE REFERENCE: MBI-010
CURRENT APPLICATION NUMBER: US/09/533,029
CURRENT FILING DATE: 2000-03-22
EARLIER APPLICATION NUMBER: 60/125,814
EARLIER FILING DATE: 1999-03-23
NUMBER OF SEQ ID NOS: 121
SOCTWARE: Patentin Ver. 2.1
SEQ ID NO 88
LENGTH: 226
TYPE: PRT
ORGANISM: Arabidopsis thaliana
FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 4783, Application US/09621976
Patent No. 6639063
GENERAL INFORMATION:
APPLICANT: Dumas Milne Edwards, J.B.
APPLICANT: Jobert, S.
APPLICANT: Jobert, S.
APPLICANT: Giordano, J.Y.
TITLE OF INVENTION: ESTs and Encoded Human Proteins.
FILE REFERENCE: GENSET.054PR2
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT APPLICATION NUMBER: US/09/621,976
CURRENT FILING DATE: 2000-07-21
NUMBER OF SEQ ID NOS: 19335
SSO(ID NO 4783
LENGTH: 148
TYPE: PRT.
COCUMENT APPLICATION NUMBER OF SEQ ID NOS: 19335
SEQ ID NO 4783
LENGTH: 148
TYPE: PRT.
; FEATURE:
; OTHER INFORMATION: G221
US-09-533-029-88
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US-09-533-029-88
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APPLICANT: Broun, Pierre
APPLICANT: Riechmann, Jose-Luis
APPLICANT: Keddie, James
APPLICANT: Pineda, Omaira
APPLICANT: Adam, Luc
APPLICANT: Samaha, Raymond
APPLICANT: Samaha, Raymond
APPLICANT: Zhang, James
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Best Local Similarity
Matches 5; Conserv
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26.3%;
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Pred. No. 65;
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Pred. No. 2.6e+02;
2; Mismatches 3; Indels 2:
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Query Match
45.3%; Score 39; DB 4; Length 226;
Best Local Similarity 55.6%; Pred. No. 1e+02;
Matches 5; Conservative 3; Mismatches 1; Indels 0; Gaps

Qy 1 DEIWNQMHI 9

1 DEIWNQMHI 9

1 DEIWNGMHL 222
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Search completed: July 29, 2004, 11:38:39
Job time: 14 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 200000000
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Perfect score:
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 SPTREMBL 25:*

1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_numan:*
6: sp_mammal:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_virus:*
12: sp_virus:*
13: sp_vertebrate:
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17: sp_archeap:*
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Gapop 10.0 , Gapext 0.5
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sp_virus:*
sp_virus:*
sp_verrebrate:*
sp_vrirus:*
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sp_bacteriap:*
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sp_invertebrate:*
sp_archeap:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Q8f093 leptospira Q9cue1 mus musculu	061644 caenorhabdi	031773 bacillus su	089jb9 bradvrhizob	OBrvfl avena stric	08i3n9 plasmodium	09c099 homo sanien	O8n768 homo sanien	09b916 pleistodont	09d996 mus musculu	Q20323 caenorhabdi	Q92af1 listeria in	Q8ayd0 gallus gall	Q8y643 listeria mo	Q8wnw5 sus scrofa		Description			

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אַייין ייים ייים בעדם					\vdash	0	073296 human immun		co.		O8i239 plasmodium	09fm50 arabidonsis	09gss4 human immun	OBitC7 plasmodium	083qf4 tropheryma				0		arabidonsi	_					015054 homo sapien		Q87s90 vibrio para

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GO; GO:0007156; InterPro; IPR00	SORTING OF I	-!- FUNCTION THEY PRE: MANNER II	cells."; Biochem. Bio	"Expression, regulatory s	Kanaide H.;	MEDLINE=99119339; Hirano M., Niiro	SEQUENCE FROM		growth arrest in the	"Transcriptional		SEQUENCE FRO	NCBI_TaxID=9823;	Mammalia; Eutheria;	Sus scrota (01-OCT-2003	01-MAR-2002	01-MAR-2002	OBWNW5:	ILT 1 W5
6020; Cimembrane, IEA. 5509; F:calcium ion binding; II 5194; F:cell adhesion molecule 7155; P:cell adhesion; IEA. 7156; P:homophilic cell adhesio IPR002126; Cadherin.	DF HETEROGENEOUS CELL TYPES (BY SIMIL) LAR LOCATION: TYPE I MEMBRANE PROTEIN	FUNCTION: CADHERINS ARE THEY PREFERENTIALLY INTE	Biophys. Res. Commun.	"Expression, subcellular localization and regulatory subunit of myosin phosphatase	rate way attack	MEDLINE=99119339; PubMed=9918866;	FROM N.A.	(00E-2000) to the	m_{-3000} to the	onal up-regulation of p27Kip1 during		FROM N.A.					25,	20.	(TrEMBLrel. 20,	ENDITHING !	
bind bind n mc n; I ell	CELL TYPE	CALCIUM DE RACT WITH	n. 254:490	alization	W., MIBILI	8866;		EMBL/GenBank/DDBJ	endothelial cells.";	on of p271	Nishimura J., K			Cetartiodactyla: Suina:				Last secu	Created)	77.	
ling; IBA. lecule activity; IEA. EA. adhesion; IEA.	SORTING OF HETEROGENEOUS CELL TYPES (BY SIMILARITY). SUBCELLULAR LOCATION: TYPE I MEMBRANE PROTEIN (BY SIMILARITY).	L ADHESION PROTE	166661)	and cloning of the 130 kDa	ura u., narusmorme D.J.,	1 Uset shows		ink/DDBJ databases.		(ip1 during contact-induced	Kanaide H.:		0 44440	1; Vertebrata; Euteleostomi;			annotation update)	sequence undate)		/82 AA.	

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RESULT 3
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01-MAR-2002
01-JUN-2003
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Baquero F., Berche P., Bloecker H., Brandt P., Chakraborty T.,
Charbit A., Chetouani F., Couve E., de Daruvar A., Dehoux P.,
Domann E., Dominguez-Bernal G., Duchaud E., Durant L., Dussurget O.,
Entian K.-D., Fsihi H., Garcia-del Portillo F., Garrido P.,
Gautier I., Goebel W., Gomez-Lopez N., Hain T., Hauf J., Jackson D.,
Jones L.-M., Kaerst U., Kreft J., Kuhn M., Kunst F., Kurapkat G.,
Madueno E., Maitournam A., Mata Vicente J., Ng E., Nedjari H.,
Nordsiek G., Novella S., de Pablos B., Perez-Diaz J.-C., Purcell R.,
Remmel B., Rose M., Schlueter T., Simoes N., Tierrez A.,
Vazquez-Boland J.-A., Voss H., Wehland J., Cossart P.;
"Comparative genomics of Listeria species.";
Cotience 204.4040-857/70-01
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Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1.
                           PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN 2; 5.
Calcium-binding; Cell adhesion; Glycoprotein.
Calcium-binding; Cell adhesion; Glycoprotein.
SEQUENCE 782 AA; 87536 MW; 6EID12D017CB1083 CRC64;
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ListiList; LM001857; Complete proteome.
Hyporthetical protein; Complete proteome.
SEQUENCE 77 AA; 9402 MW; 52EBCC7A180C433E CRC64;
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EMBL; AL591981; CAC99935.1; -.
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MEDLINE=21537279; PubMed=11679669;
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        Metazoa;
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        Chordata; Craniata; Vertebrata; Euteleostomi;
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Pred. No. 0.0026;
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RESULT 4
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GO; GO:0016020; C:membrane; IEA.

GO; GO:0005509; F:calcium ion binding; IEA.

GO; GO:0007156; P:homophilic cell adhesion; IEA.

InterPro; IPR002126; Cadherin.

InterPro; IPR00233; Cadherin.C_term.

Pfam; PF01049; Cadherin, C.

Pfam; PF01049; Cadherin, C.

Pfam; PF01049; Cadherin, C.

Pfam; PF01049; Cadherin, C.

Pfam; PR00205; Cadherin, C.

PRINTS; PR00205; CADHERIN.

SMART; SM00112; CA; 5.
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SIGNAL
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Baquero F., Berche P., Bloecker H., Brandt P., Chakraborty T.,
Charbit A., Chetouani F., Couve E., de Daruvar A., Dehoux P.,
Domann E., Dominguez-Bernal G., Duchaud E., Durant L., Dussurget O.,
Entian K.-D., Fsihi H., Garcia-del Portillo F., Garrido P.,
Gautier L., Goebel W., Gomez-Lopez N., Hain T., Hauf J., Jackson D.,
Jones L.-M., Kaerst U., Kreft J., Kuhn M., Kunst F., Kurapkat G.,
Madueno E., Maitournam A., Mata Vicente J., Ng E., Nedjari H.,
Nordsiek G., Novella S., de Pablos B., Perez-Diaz J.-C., Purcell R.,
Remmel B., Rose M., Schlueter T., Simoes N., Tierrez A.,
Vazquez-Boland J.-A., Voss H., Wehland J., Cossart P.;
"Comparative genomics of Listeria species.";
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Gallus.
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Hypothetical protein; Complete proteome.
SEQUENCE 77 AA; 9416 MW; 52EBCC7B5D0C433E CRC64;
                                                                                                                                                                                                                              EMBL; AL596170; CAC97201.1; PIR; AI1678; AI1678.
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DEIWNOMHIDEEKNE 15
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(TrembLrel. 24, Last annotation update)
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                                                     Conservative
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773
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EMBL/GenBank/DDBJ
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Pred. No.
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                                                          Indels
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RESULT 6
Q9D996
ID Q9D9
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DT 01-J
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Best Local :
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(1)
SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Testis;
MEDLINE=21085660; PubMed=11217851;
Chinagawa A., Shibata K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               [2]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
                                                                                                                                                                                               Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                 01-JUN-2001 (TrEMBLrel. 01-JUN-2001 (TrEMBLrel.
                                                                                                                                                                       NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                           Q9D996;
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            966q6ō
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical protein SEQUENCE 712 AA;
                                                                                                                                                                                                                                                                                            1700122011RIK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 "Direct Submission.";
Submitted (JUN-2001) to the EMBL/GenBank/DDBJ databases.
EMBL; U40799; AAA81480.1; -.
PIR; T16338; T16338.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Du z
                                                                                                                                                                                                                                                                                                                  1700122011Rik protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                InterPro; IPR001841; Znf_ring.
SMART; SM00184; RING; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      None;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "The sequence of C. Submitted (NOV-1995)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-OCT-2003 (TrEMBLrel. Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WormPep; F42C5.4; CE04557.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Waterston
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=Bristol N2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Genome sequence of the neminvestigating biology. The Science 282:2012-2018(1998)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STRAIN=Bristol N2;
MEDLINE=99069613; PubMed=9851916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Caenorhabditis elegans.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q20323
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7; Conserv
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HWONWIDD
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                                                                                                                                                                                                                                                                                                                                                                                                  (TrembLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (TrEMBLrel. (TrEMBLrel.
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                                                                                                                                                                                         Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            elegans to the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      84368 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                54.7%;
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17,
17,
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The C. elegan
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                                                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                           Created)
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EMBL/GenBank/DDBJ databases.
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Last seq
Last ann
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Pred. No.
                                                                                                                                                                                         Craniata; Vertebrata; E
Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ode C. elegans: a platform for elegans Sequencing Consortium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06A97BE962739EF6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chromadorea; Rhabditida; Rhabditoidea;
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                  Yoshino
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A
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               3
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               Itoh
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                           Euteleostomi;
               Σ.
                                                                                                                                                                                         Murinae;
               Ishii
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RESULT 7
Q9B916
ID Q9B9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                "Phylogenetic analyses of dioecious fig pollinators based on mitochondrial DNA sequences and morphology.";

L Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.

C -!- FUNCTION: CYTOCHROME C OXIDASE IS THE COMPONENT OF THE RESI
C CHAIN THAT CATALYZES THE REDUCTION OF OXYGEN TO WATER. SUBB
3 FORM THE FUNCTIONAL CORE OF THE EXTYME COMPLEX. CO I IS:
C CATALYTIC SUBUNIT OF THE ENZYME LECTRONS ORIGINATING IN
C CYTOCHROME C ARE TRANSFERRED VIA THE COPPER A CENTER OF SUBUNIT 1 TO THE BIMETALLIC CENTER FORMED BY
C AND HEME A OF SUBUNIT 1 TO THE BIMETALLIC CENTER FORMED BY
C AND COPPER B (BY SIMILARITY).

C -1- CATALYTIC ACTIVITY: 4 FERROCYTOCHROME C + O(2) = 4 FERRICYI
C -2 PATHAAY: RESPIRATORY CHAIN, TERMINAL STEP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 RA Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA Aizawa K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA Blake J., Boffelli D., Hofmann M., Contince P., de Bonaldo M.F.,
RA Gustincich S., Hill D., Hofmann M., Hume D.A., Kaniya M., Lee N.H.,
Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA Mordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Scroch K.-F.,
Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Scroch K.-F.,
Wanshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
Va Hayashizaki Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
-!- SIMILARITY: BELONGS TO THE HEME-COPPER R
EMBL; AF200409; AAK00121.1; -.
HSSP; P18401; 1FFT.
GO; GO:0019866; C:inner membrane; IEA.
GO; GO:0015721; C:integral to membrane; IEA.
GO; GO:0005746; C:mitochondrial electron tra
GO; GO:0005739; C:mitochondrion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9B916 PRELIMINARY; PRT; 520 AA.
Q9B916;
Q1-JUN-2001 (TrEMBLrel. 17, Created)
Q1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
Q1-JUN-2003 (TrEMBLrel. 25, Last annotation update)
Cytochrome oxidase subunit I (EC 1.9.3.1) (COI) (Cytochrome oxidase)
Cytochrome oxidase subunit I (EC 1.9.3.1) (COI)
                                                                                                                                                                                                                                                                                                                                                                                                                                            Weiblen G.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN-GW943;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Neoptera; Endopterygota; Hymenoptera
Agaonidae; Agaoninae; Pleistodontes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Nature 409:685-690(2001)
EMBL; AK007241; BAB24910.1; --
MGD; MGI:1923901; 1700122011Rik.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=108973;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mitochondrion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hayashizaki
                                                                                                                                                                 SUBCELLULAR
                                                                                                                 INNER MEMBRANE (BY SIMILARITY).
SIMILARITY: BELONGS TO THE HEME-COPPER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   38
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Endopterygota; Hymenoptera; Apocrita; Chalcidoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                           LOCATION: INTEGRAL MEMBRANE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                53.5%;
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DΒ
                    transport chain; IEA
                                                                                                                    RESPIRATORY OXIDASE FAMILY
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                                                                                                                                                         PROTEIN. MITOCHONDRIAL
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SUBUNITS 1-
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pRINTS; PR01165; CYCOXIDASEI.
pROSITE; PS00077; COX1; 1.
Copper; Electron transport; Heme;
                                                                                  Q9C099;
Q9C099;
01-JUN-2001
01-JUN-2001
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-OCT-2002 (TrEMBLrel. 22, Created)
01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Oxidoreductase; Respiratory chain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hypothetical protein KIAA1764. Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q8N768;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Strausberg R.; Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical SEQUENCE 9:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00560; LRR; 4.
SMART; SM00365; LRR_SD22; 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; BC030701; AAH30701.1; InterPro; IPR001611; LRR.
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                                                                   Hypothetical
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                     Homo sapiens (Human)
                                           KIAA1764
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7; Conserv
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IPR007092; LRR_SDS22.
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      Metazoa;
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933 AA; 1
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                                                             (TrEMBLrel. 17, Created)
(TrEMBLrel. 17, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
. protein KIAA1764 (Fragment).
                                                                                                                                                                          PRELIMINARY;
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      Chordata; Craniata; Vertebrata; Euteleostomi;
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Pred. No.
2; Mismatc
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Pred. No.
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A Mungall K., Bowman S., Atkin R., Baker S., Barron A., Brooks K.,
Buckee C.O., Burrows C., Cherevach I., Chillingworth C.,
Chillingworth T., Christodoulou Z., Clark L., Clark R., Corton C.,
A Chillingworth T., Christodoulou Z., Clark L., Clark R., Corton C.,
A Cronin A., Davies R., Davis P., Dear P., Dearden F., Doggett J.,
A Feltwell T., Goble A., Goodhead I., Gwilliam R., Hamlin N., Hance Z.,
A Feltwell T., Goble A., Goodhead I., Gwilliam R., Hamlin N., Hance Z.,
A Harper D., Hauser H., Hornsby T., Holroyd S., Horrocks P.,
A Knights A., Konfortov B., Kyes S., Larke N., Lawson D., Lennard N.,
A Knights A., Konfortov B., Kyes S., Larke N., Lawson D., Lennard N.,
A Knights A., Konfortov B., Kyes S., Larke N., Mayon D., Lennard N.,
A Knights A., Modison M., Mclean J., Mooney P., Woule S., Murphy L.,
A Line A., Maddison M., Mclean J., Mooney P., Woule S., Murphy L.,
A Cliver K., Ormond D., Price C., Quail M.A., Rabbinowitsch E.,
A Coliver K., Ormond D., Price C., Quail M.A., Rabbinowitsch S.,
A Rajandream M.A., Rutter S., Rutherford K.M., Sanders M., Simmonds M.,
A Ragard R., Sharp S., Smith R., Squares R., Squares S., Stevens K.,
A Taylor K., Tivey A., Unwin L., Whitehead S., Woodward J.,
A Sulston J.E., Craig A., Newbold C., Barrell B.G.,
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Devlin K., Baker S., I

Hall N., Bowman S., Cl

Submitted (SEP-2002)
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Q8I3N9;
01-MAR-2003
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Magase T., Kikuno R., Hattori A., Kondo Y., Okumura K., Ohara O.;
"Prediction of the coding sequences of unidentified human genes. XI.
The complete sequences of 100 new cDNA clones from brain which code
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical protein.
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InterPro; IPR003603; LRRcap.
InterPro; IPR007992; LRR SDS22.
InterPro; IPR007017; Spectrin.
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Eukaryota; Alveolata;
NCBI_TaxID=36329;
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01-MAR-2003
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                                                                                                                                                                                                                              Sulston J.E., Craig A., Newbold C., "Sequence of Plasmodium falciparum Nature 419:527-531(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE FROM N.A.
                                                                                                               Hypothetical protein. SEQUENCE 9341 AA;
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Res. 7:347-355(2000).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PubMed=12368867;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   , Davies P., Mungal K., Berriman M., Churcher C., Quail M., Barrell B.; to the EMBL/GenBank/DDBJ databases
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46.7%;
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42
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Apicomplexa; Haemosporida; Plasmodium.
       Score 46; DB Pred. No. 85; 2; Mismatches
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                                                                                                                       BAE88CDEDF66B92D CRC64;
           46;
No.
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                                               Length 9341;
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Similarity

8.6e+02;

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6,

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Best Local S
Matches 7
              Bradyrhizobium japonicum USDA110.",
DNA Res. 9:189-197(2002).
EMBL; AP005954; BAC50629.1; -.
GO; GO:0005874; C:microcubule; IEA.
GO; GO:0005198; F:structural molecule activity; IE
GO; GO:0007018; P:microcubule-based movement; IEA.
                                                                                                                                                                                                                                                                                                                                        Kaneko T., N
Sasamoto S.,
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. STRAIN=USDA 110;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Bradyrhizobium japonicum.
Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        01-JUN-2003 (TrEMBLrel.
01-OCT-2003 (TrEMBLrel.
Bl15364 protein.
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=22484998; PubMed=12597275;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q89JB9;
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Q89JB9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam;
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Avena strigosa (black oat).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Eukaryota; Viridiplanta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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01-JUN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PF00931; NB-ARC; 1.
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                                                                                                                                                                                                                 genomic sequence of nitrogen-fixing symbiotic bacterium
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IPR002453;
                                                                                                                                                                                                                                                                                                                                 Nakamura Y., S., Watanabe A.,
                                                                                                                                                                                                                                                                                                    Matsumoto M.,
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176 AA;
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; 20133 MW;
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                                                                                                                                                                                                                                                                                     Sato S., Minamisawa K., Uchiun
.., Idesawa K., Iriguchi M., Kaw
, Shimpo S., Tsuruoka H., Wada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24,
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Pred. No.
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ada T., Yamad
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          Query Match
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Best Local :
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O31773;
O1-JAN-1998
O1-JAN-1998
                                                                  Complete proteome SEQUENCE 391 AA
                                                                                                                                                                                Kunst F., Ogasawara N., Yoshikawa H., Danchin Submitted (NOV-1997) to the EMBL/GenBank/DDBJ EMBL, Z99112; CAB13568.1; -. PIR: C69673; C69673.
                                                                                                                                                                                                                                                                                                                      STRAIN=168;
                                                                                                                                                                                                                                                                                                                                                                                                                Nature 390:249-256(1997).
                                                                                                                    InterPro; IPR001466; Beta_lactamase.
Pfam; PF00144; beta-lactamase; 1.
                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-JUN-2003 (TrEMBLrel. 24,
Penicillin-binding protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00228; TUBULIN_B_AUTOREG; Complete proteome.
SEQUENCE 264 AA; 28370 MW; DFF860
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=98044033; PubMed=9384377;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=1423;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacillus subtilis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 6; Conserva
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Firmicutes;
                                                               391 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         264 AA;
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                                                        43858 MW; 08D3D7AB99826CCE CRC64;
                                                                                                                                                                                                                                                   to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         28370 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bacillales; Bacillaceae; Bacillus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      . 05,
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Last annotation update)
   Score 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.
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Pred. No. 30;
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DВ
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16;
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RESULT 14
061644
ID 06164
AC 06164
DT 01-AI
DT 01-O
DE FEM-
OS CARY
OC Rhal
OX NCB
RP SEC
RC STF
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RESULT 15
QBF09
ID QBF09
AC QBF09
AC QBF09
DT 01-MA
DT 01-JU
DT Sulfa
GN Laptc
OX Leptc
OX NCBI
RN [1]
RN [1]
RN [1]
RR SEQUE
RR SEQUE
RAA Ren & SEQUE
RAA Ren & GO;
DR GO;
DR GO;
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Matches 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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GO; GO:0008287; C:protein serine/threonine phosphatase complex; IEA.

GO; GO:001678; F:hydrolase activity; IEA.

GO; GO:0000287; F:magnesium ion binding; IEA.

GO; GO:0000287; F:protein serine/threonine phosphatase activity; IEA.

GO; GO:0004722; F:protein amino acid dephosphorylation; IEA.

GO; GO:0006470; P:protein amino acid dephosphorylation; IEA.

InterPro; IPR001932; PP2C.

InterPro; IPR001932; PP2C-like.

Pfam; PF00481; PP2C; 1.
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01-AUG-1998 (TrEMBLrel. 07, Created)
01-AUG-1998 (TrEMBLrel. 07, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Putative PP2C protein phosphatase FEM-2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SMART; SM00332; PP2Cc; 1.
SMART; SM00331; PP2C SIG; 1.
PROSITE; PS01032; PP2C; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Genetics 0:0-0(1998).
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"Molecular Evolution of a Sex Determination
Caenorhabditis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=AF16;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=6238;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bukaryota; Metazoa; Nematoda; Chromadorea; Rhabditida; Rhabditidae; Peloderinae; Caenorhabditis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Caenorhabditis briggsae.
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     STRAIN=56601 / Serogroup Icterohaemorrhagiae / Serovar la Ren S.;
Ren S.;
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AE0115.5; AANS0801.1; -.
GO; GO:0008484; F:sulfuric ester hydrolase activity; IEA.
GO; GO:0008152; P:metabolism; IEA.
                                                                                                                                                                                                                                                                                                                                                      Q8F093;
01-MAR-2003 (TrEMBLrel. 23,
01-MAR-2003 (TrEMBLrel. 23,
01-JUN-2003 (TrEMBLrel. 24,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hydrolase; Magnesium.
SEQUENCE 502 AA; 57327 MW; 9EC5F1F8FF799A41 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -!- SIMILARITY: BELONGS TO THE PP2C FAMILY
                                                                                                                                                                                                                                               Leptospira interrogans.
Bacteria; Spirochaetes;
                                                                                                                                                                                                                                                                                                                               Sulfatase family protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Q8F093
                                                                                                                                                                                                             Bacteria; Spirochaetes;
NCBI_TaxID=173;
                                                                                                                                                                                                                                                                                                      LA3603
                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               481
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     50.0%;
                                                                                                                                                                                                                                                 Spirochaetales; Leptospiraceae; Leptospira.
                                                                                                                                             Icterohaemorrhagiae /
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Pred. No. 58;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
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В
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                                    Query Match
Best Local S
Matches 8
                                                                           InterPro; IPR000917; Sulfatase.
Pfam; PF00884; Sulfatase; 1.
Complete proteome.
SEQUENCE 787 AA; 91636 MW;
 176 EIWNOTERNKEKN 188
                                     l Similarity
8; Conserv
                   2 EIWNOMHIDEEKN 14
                                       Conservative
                                                 52.3%;
                                       2;
                                                  Score 45;
Pred. No.
                                                                              1BF953631B28F798 CRC64;
                                        Mismatches
                                                    DB
93;
                                                         16; Length 787;
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••
                                         Indels
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Search completed: July 29, 2004, 11:37:08 Job time: 33 secs

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Result
No.
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Maximum DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
                                                                                                                                                                                                                                                                                                                                                                                                                                                    Database :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Total number of hits satisfying chosen parameters:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence:
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RC STRAINC57BL/6; TISSUB=Brain; RC STRAINC57BL/6; TISSUB=Brain; RX MEDLINE=22388257; PubMed=12477932; RS brausberg R.L., Feingold E.A., Grouse L.H., Derge J. Strausberg R.L., Feingold E.A., Grouse L.H., Shenmen C.M. Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F. Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J. Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Schaefer M.J., Usdin T.B., Fonbhiyuki S., Carninci R. Stapleton M., Soares M.B., Bonaldo M.F., Casavant T. Brownstein M.J., Usdin T.B., Tobhiyuki S., Carninci Raha S.S., Loquellano N.A., Peters G.J., Abramson R. Raha S.S., Loquellano N.A., Peters G.J., Abramson R. Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gay Richards S., Worley K.C., Hale S., Garcia A.M., Gay Willalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gay Raha H., Madan A., Young A.C., Shevchenko Y. Bou Whiting M., Madan A., Young A.C., Shevchenko Y. Bou Whiting M., Madan A., Young A.C., Shevchenko Y. Bou Makan Blakesley R.W., Touchman J.W., Green E.D., Dickson M. Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Sma. Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;	REVISIONS TO 67-70. Breviario F; Submitted (AUG-2003) to the EMBL/Ge [3] SEQUENCE FROM N.A., AND FUNCTION. STRAIN-BALB/G; TISSUE-Breast carcin MEDLINE-97364256; PubMed-9220534; Matsuyoshi N., Toda KI., Horiguch Takeichi M., Immura S.; "In vivo evidence of the critical r vascular integrity,"; Proc. Assoc. Am. Physicians 109:362	SEQUENCE FROM N.A. TISSUE-Brain capil MEDLINE-9614108; Breier G. Breviar Gotsch U., Vestweb "Molecular cloning cadherin in early Blood 87:630-641(1	MOUSI CADS CADS 01-00 10-00 10-00 10-00 Vascu CDHS. Mus n Eukan Mamma	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
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FUNCTION: Cadherine are calcium dependent cell adhesion proteins. The scintibute in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions.

SUNCELLULAR LOCATION: Type I membrane protein.

SUNCIARITY: Contains 5 cadherin domains.
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c. Natl. Acad. Sci. U.S.A.
     scrofa (Pig).
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RESULT 3
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(Rel. 27, Created)

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SMART; SM00112; CA; 5.
PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN_2; 5.
                                                                                                                                                                                                                                                                                                   InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1.
                                                                                                                                                                                                                                                                                                                                       EMBL; Y13919; CAA74225.1;
HSSP; P09803; 1EDH.
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                                                                                CARBOHYD
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DWIWNOMHIDEEKN
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EXTRACELLULAR
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"Diversity of the cadherin family:
in nervous tissue.";
Cell Regul. 2:261-270(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cell-cell
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"A novel endothelial-specific membrane protein is a marker of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MEDLINE=92394977; PubMed=1522121;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TISSUE=Placenta;
MEDLINE=97362755; PubMed=9219219;
Ali J., Liao F., Martens E., Muller W.A.;
"Vascular endothelial cadherin (VE-cadherin): cloning endothelial cell-cell adhesion.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=95353875; PubMed=7627717;
Breviario F., Caveda L., Corada M., Martin-Padura I., Navarro
Golay J., Introna M., Gulino D., Lampugnani M.G., Dejana E.;
"Functional properties of human vascular endothelial cadherin
(7B4/cadherin-5), an endothelium-specific cadherin.";
Arterioscler. Thromb. Vasc. Biol. 15:1229-1239(1995).
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Mammalia; Eutheria; Primates;
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15-MAR-2004 (Rel. 43, Last annotation update)
Vascular endothelial-cadherin precursor (VE-cadherin) (Cadherin-5)
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FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. SUBCELLULAR LOCATION: Type I membrane protein. Found at cell-cell boundaries and probably at cell-matrix boundaries.

TISSUE SPECIFICITY: Endothelial tissues and brain.
                                                                                                                                                                                                                                                                                                                                                      SIMILARITY: Contains 5 cadherin domains.
DATABASE: NAME=PROW; NOTE=CD guide CD144 entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd144.htm".
                                                                                                                                    SWISS-PROT entry is copyright. It is produced through a collaboratic een the Swiss Institute of Bioinformatics and the EMBL outstation European Bioinformatics Institute. There are no restrictions on it by non-profit institutions as long as its content is in no was a superior of the state of
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equires a license agreement (See http://www.isb-sib.ch/announce/email to license@isb-sib.ch).
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EMBL; W84722; AA841796.1;
EMBL; AB035304; BAA87418.1;
EMBL; X59796; CAA42468.1;
EMBL; X59796; JTHUC5.
                                                                                                                                                                                                         Q8K7H8;
28-FEB-2003
28-FEB-2003
15-MAR-2004
SEQUENCE FROM N.A.
STRAIN-MGAS315 / Serotype M3;
MEDILINE=22133808; PubMed=12122206;
Beres S.B., Sylva G.L., Barbian K.D., Le
Mammarella N.D., Liu M.-Y., Smoot J.C.,
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GO; GO:0005624; C:membrane fraction; TAS.
GO; GO:0005886; C:plasma membrane; TAS.
GO; GO:0005886; P:homophilic cell adhesion;
InterPro; IPR002126; Cadherin.
InterPro; IPR002126; Cadherin_C_term.
Pfam; PF00028; Cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1.
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MIM; 601120; -.
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"Genome sequence of a serotype M3 strain of group A Streptococcus: phage-encoded toxins, the high-virulence phenotype, and clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -!- FUNCTION: Interconversion of serine and glycine.
-!- CATALYTIC ACTIVITY: 5,10-methylenetetrahydrofolate + glycine
-!- COPACTOR: Pyridoxal phosphate (By similarity).
-!- PATHWAY: Key enzyme in the biosynthesis of purines, lipids, hormones and other components.
-!- SUBGUIT: Homotetramer (By similarity).
-!- SUBCELIULAR LOCATION: Cytoplasmic (By similarity).
-!- SUMILARITY: Belongs to the SHMT family.
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Genome Res. 13:1042-105
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=22683278; PubMed=12799345;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL; AP005144; BAC64097.1; ALT_INIT. HAMAP; MF 00051; -; 1. InterPro; IPR001085; Gly HyMetransf. Pfam; PF00464; SHMT; 1.
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                                                                                                                                                                                                                                                                               GLYA_STRP8 STANDARD; PRT; 418 AA. 089122; Q89122; C8-FEB-2003 (Rel. 41, Created) 28-FEB-2003 (Rel. 41, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update) 28-FEB-2003 (Rel. 41, Last annotati
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Transtern 230 230
                                                                                                                                                                     Streptococcus pyogenes (serotype M18). Bacteria; Firmicutes; Lactobacillales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRP8
SEQUENCE FROM N.A. STRAIN=MGAS8232 / MEDLINE=21927593;
                                                                                                                                                                                                                                   GLYA OR SPYM18_1105.
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                                                                                                                                             Streptococcus
                                                                                                             NCBI_TaxID=186103;
                                                                                                                                                                                                                                                                SHMT
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     Serotype M18;
PubMed=11917108;
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42.9%;
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Pred. No. 7;
5; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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-!- PATHWAY: Key enzyme in the biosynthesis of pur-
hormones and other components.
-!- SUBUNIT: Homotetramer (By similarity).
-!- SUBCELLULAR LOCATION: Cytoplasmic (By similari-
-!- SIMILARITY: Belongs to the SHMI family.
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H(2)0 = tetrahydrofolate + L-serine
- COFACTOR: Purifacula - L-serine
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HAMAP; MF_00051; -; 1.
InterPro; IPR001085; Gly_HyMetransf
Pfam; PF00464; SHMT; 1.
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                                                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=SF370 / ATCC 700294 / Serotype M1;
MEDLINE=21192684; PubMed=11296296;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Serine hydroxymethyltransferase (EC 2.1.2.1)
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                                                                                       Ferretti J.J., McShan W.M., Ajdic D.J., Savic D.J., Savic Primeaux C., Sezate S., Suvorov A.N., Kenton S., Lai H.S. Qian Y., Jia H.G., Najar F.Z., Ren Q., Zhu H., Song L., Yuan X., Clifton S.W., Roe B.A., McLaughlin R.; "Complete genome sequence of an MI strain of Streptococy proc. Natl. Acad. Sci. U.S.A. 98:4658-4663 (2001).

-i- FUNCTION: Interconversion of serine and Jycine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Streptococcus pyogenes.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          Streptococcus
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                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=1314;
                                     -!- CATALYTIC ACTIVITY: 5,10-methylenetetrahydrofolate
H(2)0 = tetrahydrofolate + L-serine
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6; Conserv
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         phosphate (By similarity)
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                                                                                                                                                              Streptococcus pyogenes.",
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Best Local
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MEDLINE-97313268; PubMed-9169872;
MEDLINE-97313268; PubMed-9169872;
Medman S., Chillingworth Bowman S., Chillingworth Connor R., Dedman K., Devlin K., Gentles S., Hamlin N., Hunt S. Connor R., Dedman K., Devlin K., Gentles S., Hamlin N., Hunt S. Jagels K., Lye G., Moule S., Odell C., Pearson D., Rajandream Rice P., Skelton J., Walsh S., Whitehead S., Barrell B.G.;
Rice P., Skelton J., Walsh S., Whitehead S., Barrell B.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                P32874;

01-OCT-1993 (Rel. 27, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
HFA1 protein.
HFA1 protein.
HFA1 OR YMR207C OR YM8261.01C OR YM8325.08C.
                    This
                                                                                                                   DNA
                                                                                                                                        Kearsey S.E.;
"Identification of a Saccharomyces cerevisiae
                                                                                                                                                                                                                                                                                                                                                                                 Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetales; Saccharomycetaceae; Saccharomyces.
       between
                                                                                                                                                                       MEDLINE=94146412;
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                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AB006556; AAK34017.1; -.
HSSP; P00477; IDFO.
HAMAP; MF_00051; -; 1.
InterPro; IPR001085; Gly_HyMetransf
Pfam; PF00464; SHMT; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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                                      COPACTOR: Biotin (By similarity).

SIMILARITY: STRONG, TO ACETYL-COA CARBOXYLASE.
CAUTION: The reading frame from which this protein has no Met initiation codon near to the 5'end. It do be a pseudogene. There are no apparent frameshifts.
                                                                                                               3 (acetyl-CoA carboxylase).";
Seq. 4:69-70(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PATHWAY:
hormones
SUBUNIT:
SWISS-PROT entry is copyright. It is produced through een the Swiss Institute of Bioinformatics and the EW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: Cycoplasmic (By s SIMILARITY: Belongs to the SHMT family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      YEAST
                                                                                                                                                                                                                  387:90-93(1997).
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                                                                                                                                                                      125-949 FROM N.A.
46412; PubMed=7906156;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      418 AA;
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and
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Cytoplasmic (By similarity).
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PYRIDOXAL PHOSPHATE (BY SIMILARITY)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AF475E79D41D9A1F CRC64;
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          a collaboration
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RESULT 8
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Best Local S
Matches 7
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InterPro; IPR001882; Biotin_BS.

InterPro; IPR005482; Biotin_Carb C.

InterPro; IPR005482; Biotin_Ipoyl.

InterPro; IPR000089; Biotin_Ilpoyl.

InterPro; IPR000022; Carboxyl trans.

InterPro; IPR005479; CPase_L_N.

InterPro; IPR005481; CPase_L_N.

Pfam; PF02785; Biotin_Carb_C; 1.

Pfam; PF01039; Carboxyl trans; 1.

Pfam; PF01039; Carboxyl trans; 1.

Pfam; PF01039; Carboxyl trans; 1.

Pfam; PF00289; CPSase_L_Chain; 1.

Pfam; PF00289; CPSase_L_D; 1.

PROSITE; PS00186; CPSASE_1; 1.

PROSITE; PS00186; CPSASE_1; 1.

PROSITE; PS00186; CPSASE_1; 1.

PROSITE; PS00186; CPSASE_1; 1.

PROSITE; PS00186; CPSASE_2; 1.

Biotin_Lidate; ATP-bidTing
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ACT ST
                                                                      STRAIN=Tokyo 1998;
MEDLINE=20445173; PubMed=10993077;
Shigenobu S., Watanabe H., Hattori M., Sakaki Y., Ishikawa H.;
"Genome sequence of the endocellular bacterial symbiont of aphid
Buchnera sp. Aps.";
Nature 407.81-86(2000).
-!- FUNCTION: Catalyzes the sequential NAD-dependent oxidations
histidinol to L-histidinaldehyde and then to L-histidine (By
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               BINDING
CONFLICT
                                                                                                                                                                                                                                 symbiotic bacterium).
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
                                                                                                                                                                                                                                                                  Buchnera aphidicola (subsp. Acyrthosiphon pisum)
                                                                                                                                                                                                                                                                                              16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation updat
Histidinol dehydrogenase (EC 1.1.1.23) (HDH
                                                                                                                                                                                        SEQUENCE FROM N.A.
                                                                                                                                                                                                                              Enterobacteriaceae; Buchnera.
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16-OCT-2001
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EMBL; Z48755; CAA88647.1; -.
EMBL; Z22558; CAA80280.1; -.
PIR; S55089; S55089.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the European Bioinformatics Institute. The use by non-profit institutions as long modified and this statement is not removed. entities requires a license agreement (See
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HSSP;
 COFACTOR: Binds 1 zinc ion per subunit PATHWAY: Histidine biosynthesis; ninth SUBUNIT: Homodimer (By similarity).
                                          similarity).
CATALYTIC ACTIVITY: L-histidinol + 2 NAD(+) + H(2)0 = L-histidine
                                                                                                                                                                                                                                                                                                                                                                                                                                      1248
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7; Conserv
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804
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(Ву
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BY SIMILARITY.
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BIOTIN (BY SIMILARITY).
F -> L (IN REF. 2).
MW; 08727A301549DA92 CRC6
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                                                                                                                                                                                                                                                                                                                                                                  435 AA
                                                                                                                                                                                                                                                                                                           update)
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                                                                                                                                                                                                                                                                                                 (HDH)
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Best Local S
Matches 6
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C_BUCAP
DP3X_BUCAP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HAMAP; MF_01024; ; 1.
InterPro; IPR001692; Histidinol dh.
Pfam; PF00815; Histidinol dh; 1.
PRINTS; PR00083; HOLDHDRGNASE.
PRODOM; PD002680; Histidinol dh; 1.
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METAL
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28-FEB-2003
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                                                                                                                                                                                                                                                                                                                                                        Buchnera aphidicola (subsp. Schizaphis graminum).
Bacteria; Proteobacteria; Gammaproteobacteria; Enterobacteriales;
Enterobacteriaceae; Buchnera.
                                                                                                                                                                                                                                                                                                                                                                                                         28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
DNA polymerase III subunit gamma (EC 2.7.7.7)
DNAX OR BUSG466.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
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                                                                                                                                                                                                                                        Tamas I., Klasson L., Canbaeck B., Naeslund A.K., Eriksson A.-S., Wernegreen J.J., Sandstroem J.P., Moran N.A., Andersson S.G.E.; "50 million years of genomic stasis in endosymbiotic bacteria."; Science 296:2376-2379(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Complete proteome.
            This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
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                                                                                                                                                                                                                                                                                                     MEDLINE=22084549; PubMed=12089438;
                                                                                                                                                                                                                                                                                                                                            NCBI_TaxID=98794;
                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SIMILARITY: Belongs to the histidinol dehydrogenase family.
                                                                                                                                                                             FUNCTION: DNA polymerase III is a complex, multichain enzyme responsible for most of the replicative synthesis in bacteria. This DNA polymerase also exhibits 3' to 5' exonuclease activity. CATALYTIC ACTIVITY: N deoxynucleoside triphosphate = N diphosphate
                                                                                     SUBUNIT: DNA polymerase III contains a core (composed of alpha, epsilon and theta chains) that associates with a tau subunit. This core dimerizes to form the POLIII! complex. PolIII! associates with the gamma complex (composed of gamma, delta, delta', psi and chi chains) and with the beta chain to form the complete DNA chi chains)
                                                                          polymerase III complex (By similarity).
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Pred. No.
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ZINC (BY SIMILARITY).
ZINC (BY SIMILARITY).
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83DD3DDC4E43430E CRC64;
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RESULT 10
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InterPro; IPR003595; AAA ATPase centr.
InterPro; IPR0031270; Chaprnin_ClpA/B.
InterPro; IPR008921; Pol clamp load_C.
InterPro; IPR000862; RFCdomain.
Pfam; PF00004; AAA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10-OCT-2003 (Rel. 42, Created)
10-OCT-2003 (Rel. 42, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Pleckstrin homology domain containing family G member 1 (Fragment).
PLEKHG1 OR KIAA1209.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Transferase; DNA-directed DNA polymerase; DNA replication; ATP-binding; Complete proteome.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00300; CLPPROSMART; SM00382; AAA; 1.
                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Q9ULL1;
10-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NP BIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Prediction of the coding sequences of The complete sequences of 100 new cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ohara O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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                                                                                                                        Pfam; PF00169; PH; 1.
SMART; SM00233; PH; 1.
PROSITE; PS50003; PH_DOMAIN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA Res.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nagase T., Ishikawa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=20039619; PubMed=10574462;
Nagase T., Ishikawa K.-I., Kikuno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=9606;
                                        SEQUENCE
                                                                                                                                                                                                                                Genew; HGNC:20884; PLEKHG1.
                                                                                                                                                                                                                                                       EMBL; AB033035; BAA86523.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               rissuE=Brain;
                                                              Hypothetical protein.
NON TER 1
DOMAIN 45 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                        InterPro; IPR001849; PH.
InterPro; IPR000219; RhoGEF
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            large proteins in vit
Res. 6:337-345(1999).
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                                            1113 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in vitro."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi;
    48.8%;
                                            124624
                                            MW;
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Pred. No.
      Score 42;
                                                                  PH.
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                                            62E8E2C898B3519A CRC64;
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(See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       unidentified human genes. XV clones from brain which code
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      DB 1;
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RESULT 11
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InterPro; IPR000233; Cadherin_C_term.
Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1.
                                                                                                                                              PROSITE; PS50268; CADHERIN_2; 5.
                                                                                                                                                                                                                                                                                                                                                                                              the
                                                                TRANSMEM
                                                                                                                                      Cell adhesion;
                                                                                                                                                                                                                                                                                                EMBL; AJ007607; CAC13126.1; EMBL; AY358654; AAQ89017.1; HSSP; P15116; 1NCJ.
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                                                                                                                                                                                                                                                                                 Genew; HGNC:1758; CDH19.
                                                                                                                                                                                                                                                                                                                                         entities requires a license agreement (See http://www.isb-sibor send an email to license@isb-sib.ch).
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28-FEB-2003 (Rel. 41, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
Cadherin-19 precursor (UNQ478/PRO941).
CDH19 OR CDH7L2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genomics 68:283-295(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Characterization of three novel human cadherin genes and CDH20) clustered on chromosome 18q22-q23 and with to chicken cadherin-7.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=20453188; PubMed=10995570;
Kools P., Van Imschoot G., van Roy F.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CADJ_HUMAN
Q9H159;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                             s SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way ified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                        of uterus.
SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types.
SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Expressed in many tissues, with the exception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: Cadherins are calcium dependent cell adhesion proteins They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the
                                                                                                                                                                                                                                                                         603016; -.
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                                                                                                                                                                       ; PR00205; CADHERIN.
SM00112; CA; 5.
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CADHERIN-19.
EXTRACELLULAR
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CYTOPLASMIC (PC
CADHERIN 1.
CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
                                                                                                                                Transmembrane; Calcium-binding; Repeat;
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                                                (POTENTIAL)
                                                                     (POTENTIAL)
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                                                                                                                                     Weber R.E., Fago A., Val A.L., Bang A., Van Hauwaert M.-
Dewilde S., Zal F., Moens L.,
"Isohemoglobin differentiation in the bimodal-breathing
catfish Hoplosternum littorale.",
J. Biol. Chem. 275:17297-17305(2000).
-!- FUNCTION: Involved in oxygen transport from the lung
                                                                                                                                                                                                                                                                                                                                                                       HBBC HOPLI
P82316;
16-OCT-2001
                                                              SEQUENCE
                                                                               METAL
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                                                                                                    Pfam; PF00042; globin; 1.
PRINTS; PR00814; BETAHAEM.
                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Siluriformes; Callichthyidae; Hoplosternum.
                                                                                                                    InterPro; IPR002337; Beta haem.
InterPro; IPR000971; Globin.
                                                                                                                                                                                                                                                                   MEDLINE=20298792;
                                                                                                                                                                                                                                                                           TISSUE=Blood;
                                                                                                                                                                                                                                                                                SEQUENCE, SUBUNIT,
                                                                                                                                                                                                                                                                                                                                Hoplosternum littorale (Hassar).
                                                                                                                                                                                                                                                                                                                                          HBB
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16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
Hemoglobin cathodic, beta chain (Hb(Ca) beta chain).
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IWGKIHIDE
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146 AA;
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                                                                             transport; Transport; 63 63 IRON
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                                     Score 40; DB
Pred. No. 15;
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                             Mismatches
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(HEME PROXIMAL LIGAN
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                                            Length 146;
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                                                                    LIGAND)
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28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between the Swiss Institute of Bioinformatics and the EMBI outstati
the European Bioinformatics Institute. There are no restrictions on
use by non-profit institutions as long as its content is in no
modified and this statement is not removed. Usage by and for commer
entities requires a license agreement (See http://www.isb-sib.ch/annou
or send an email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       HAMAP; MF_00222; -; 1.
InterPro; IPR006152; Shikimate.
InterPro; IPR006151; Shikimate_DH;
Pfam; PF01448; Shikimate_DH; 1.
TIGRFAMS; TIGR00507; aroE; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shimizu T., Ohtani K., Hirakawa H., Ohshima K., Yamashita A.,
Shiba T., Ogasawara N., Hattori M., Kuhara S., Hayashi H.;
"Complete genome sequence of Clostridium perfringens, an anae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=13 / Type A;
MEDLINE=21664373; PubMed=11792842;
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Bacteria; Firmicutes; C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Complete
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Proc. Natl. Acad. Sci. U.S.A. 99:996-1001(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              flesh-eater.";
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                                                                                                                                                                                                                                    PTPA, HUMAN STANDARD; PRT; 358 AA.
(15257; Q15258; Q9BUXI; Q9NNZ7; Q9NNZ8; Q9NNZ9;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
Protein phosphatase 2A, regulatory subunit B' (1)
isoform) (Phosphotyrosyl phosphatase activator)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; AP003187; BAB80406.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                 HUMAN
                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Aromatic amino acid biosynthesis; Oxidoreductase; NADP
                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                   PPP2R4 OR PTPA
                           TISSUE=Heart;
                                               SEQUENCE FROM N.A., AND PARTIAL SEQUENCE
  MEDLINE=94253154; PubMed=8195217
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PATHWAY: Aromatic amino acids biosynthesis; shikimate pathway;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CATALYTIC ACTIVITY: Shikimate + NADP(+) =
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fourth step.
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271 AA;
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03 (Rel. 41, Last annotation updat
5-dehydrogenase (EC 1.1.1.25).
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(Rel. 41, Last ann
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Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 40; DB Pred. No. 28; 4; Mismatches
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                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         311AFA6C6B63ACFE CRC64;
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                                                                                                                                                                                                                                               (PP2A, s)r) (PTPA)
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Cayla X., Van Hoof C., Bosch M., Merlevede W., Goris J.;
"Molecular cloning, expression, a protein that activates the tyrosy phosphatase 2A.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encoded by the human phosphotyrosyl
Eur. J. Biochem. 267:4406-4413(2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A. (ISOFORMS 2; 3 AND MEDLINE=20341117; PubMed=10880964;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Structure and chromosomal localization of the human gene of the phosphotyrosyl phosphatase activator (PTPA) of protein phosphata
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Janssens V., van Hoof C., Martens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Genomics
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=96015056;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Blood;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=22388257; PubMed=12477932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TISSUE=Placenta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 [4]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Identification and characterization of alternative splice
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2
                                                                                                                                                                                                                                                       -
                                                                                             Name=4; Synonyms=Epsilon;
IsoId=Q15257-4; Sequence=VSP_005124;
TISSUE SPECIFICITY: Widely expressed.
                                                                                                                                                                                                                   and Mg(2+) (in vitro).
SUBUNIT: Associates with PP2A heterodimeric core of a 36 kDa catalytic subunit (subunit C) and a 6 regulatory subunit (PR65 or subunit A).
ALITERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                            FUNCTION: Reversibly stimulates the variable phosphatase activity of PP2A core heterodimen
                                                                                                                                                           Name=1; Synonyms=Alpha;
IsoId=Q15257-2; Sequence=VSP_005123;
                                                                                                                                   Name=3; Synonyms=Delta;
IsoId=Q15257-3; Sequence=VSP_005122;
                                                                                                                                                                                           Name=2; Synonyms=Beta;
                                                                                                                                                                                                        Event=Alternative splicing; Named isoforms=4;
                                                                                                                                                                                 IsoId=Q15257-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28:261-272(1995).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PubMed=8530035;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Garcia A., Cayla X., Cassiman J., Merlevede
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sion, and characterization of PTPA, a tyrosyl phosphatase activity of protein
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CONFLICT
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PIR; A54021; A54021.
Canew; HGNC:9308; PPP2R4.
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Pfam; PF03095; PTPA; 1.
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EMBL;
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EMBL;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            L; X86439; CAB77601.1; JOINELL; X86429; CAB77602.1; JOINELL; X86432; CAB77602.1; JOINELL; X86432; CAB77602.1; JOINELL; X86433; CAB77602.1; JOINELL; X86435; CAB77602.1; JOINELL; X86436; CAB77602.1; JOINELL; X86437; CAB77602.1; JOINELL; X86439; CAB77602.1; JOINELL; X86439; CAB77602.1; JOINELL; X86439; CAB77603.1; JOINELL; X86439; CAB77603.1; JOINELL; X86436; CAB77603.1; JOINELL; X86436; CAB77603.1; JOINELL; X86436; CAB77603.1; JOINELL; X86437; CAB77603.1; JOINELL; X86438; CAB77603.1; JOINELL; X86438; CAB77603.1; JOINELL; X86439; CAB77603.1; JOINELL; X864039; 
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X86429; CAA60163.1;
X86429; CAA60163.1;
X86430; CAA60163.1;
X86432; CAA60163.1;
X86434; CAA60163.1;
X86435; CAA60163.1;
X86435; CAA60163.1;
X86436; CAA60163.1;
X86437; CAA60163.1;
X86439; CAA60163.1;
X86439; CAA60163.1;
X86429; CAB77601.1;
X86431; CAB77601.1;
X86431; CAB77601.1;
X86432; CAB77601.1;
X86432; CAB77601.1;
X86433; CAB77601.1;
X86433; CAB77601.1;
X86434; CAB77601.1;
X86435; CAB77601.1;
X86436; CAB77601.1;
X86437; CAB77601.1;
X86437; CAB77601.1;
X86438; CAB77601.1;
X86439; CAB77601.1;
      72
                                                                                                                          Similarity
5; Conserv
                                                              EIWNOMHIDEEK 13
EMWNEVHEEKEQ 83
                                                                                                                                                                                                                                                    358 AA;
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297
357
                                                                                                                          Conservative
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MISSING (IN REF. 2 AND
S -> V (IN REF. 1; AA 9
                                                                                                                                                                                                                                                -> V (IN REF. 1; 6A99C521AF5F6BEB
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Sgouros J., Peat N., Hayles J., Baker S., Basham D., Bowman S., RA Sgouros J., Peat N., Hayles J., Baker S., Basham D., Bowman S., RA Brooks K., Brown D., Brown S., Chillingworth T., Churcher C.M., RA Collins M., Connor R., Cronin A., Davis P., Feltwell T., Fraser A., RA Collins M., Connor R., Cronin A., Davis D., Hidalgo J., Hodgson G., RA Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K., RA James K., Jones L., Jones M., Leather S., McDonald S., McLean J., RA James K., Jones L., Jones M., Leather S., McDonald S., McLean J., RA James K., O'Neil S., Pearson D., Quail M.A., Rabbinowitsch E., RA Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C., RA RA Hoterford K., Rutter S., Saunders B., Seger K., Sharp S., Skelton J., Simmonds M., Squares R., Squares S., Stevens K., RA Taylor K., Taylor R.G., Tivey A., Walsh S.V., Warren T., Whitehead S., RA Wodward J., Volckaert G., Aert R., Robben J., Grymonprez B., Weltjens I., Vanstreels E., Rieger M., Schaefer M., Mueller-Auer S., Staym K., Langer I., Beck A., Lehrach H., Reinhardt R., Pohl T.M., RA Borzym K., Langer I., Beck A., Lehrach H., Reinhardt R., Pohl T.M., RA Golfeau A., Cadieu E., Dreano S., Gloux S., Lelaure V., Mottier S., RA Golfeau A., Cadieu E., Dreano S., Gloux S., Lelaure V., Mottier S., RA Golfeau A., Gaillardin C., Tallada V.A., Garzon A., Thode G., Daga R.R., Cruzado L., Jimenez J., Sanchez M., del Rey F., Benito J., RA Dominguez A., Revuelta J.L., Moreno S., Armstrong J., Forsburg S.L., RA Cariutti L., Lowe T., McCombie W.R., Paulsen I., Potashkin J., Forsburg S.L., Part S., McCombie W.R., Paulsen I., Potashkin J., Forsburg S.L., Forschief G., Schizosaccharomyces pombe.";

"The genome sequence of Schizosaccharomyces pombe.";

"It serve the sequence of Schizosaccharomyces pombe.";

"It serve the serve th
RESULT 15
CALX_SCHPO
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01-JUN-1994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Fungi; Ascomycota; Schizosaccharomycetes; Schizosaccharomycetales; Schizosaccharomycetales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=21848401;
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10-OCT-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Biol.
                                                                                                        FUNCTION: Calcium-binding protein that interacts with newly synthesized glycoproteins in the endoplasmic reticulum. It may act in assisting protein assembly and/or in the retention within the ER of unassembled protein subunits. It seems to play a major role in the quality control apparatus of the ER by the retention of incorrectly folded proteins.

SUBCELIUUAR LOCATION: Type I membrane protein. Endoplasmic reticulum.

SIMILARITY: Belongs to the calreticulin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Schizosaccharomyces pombe hom
ntial for viability.";
iol. Chem. 270:4845-4853(1995)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              J. 14:3064-3072(1995).
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R., Rajandream M.A.,
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bkeach L.A.;
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ble ER domain.";
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the European Bioinformatics Institute.
use by non-profit institutions as 1 This SWISS-PROT entry is copyright. It is produced through between the Swiss Institute of Bioinformatics and the Ev non-profit and this st institutions as long There are no restrictions as its content and for EMBL outstation a collaboration -9 19 19

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EMBL; U13389; AAA68631.1; -.
EMBL; Z99568; CAB16741.1; -.
PIR; S56142; S56142.
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InterPro; IPR001903; Calret calnex P.
InterPro; IPR001903; Calret calnex InterPro; IPR001905; Contained InterPro; IPR001905; Contained InterPro; IPR008095; Contained InterPro; IPR008095; Contained InterPro; IPR00806; Calreticulin; 1.
PRINTS; PR00806; CALRETICULIN 1; 1.
PROSITE; PS00803; CALRETICULIN 2; 1.
PROSITE; PS00804; CALRETICULIN REPEAT; 2.
Calcium-binding; Endoplasmic reticulum; Transmembrane; Signal;
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560 AA;
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                                                                                                           Score 40; DB 1; Length 560; Pred. No. 62; 2; Mismatches 1; Indels
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CYTOPLASMIC (POTENTIAL).

4 X APPROXIMATE REPEATS.
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CALNEXIN HOMOLOG.
LUMENAL (POTENTIAL).
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F;736-753/Region: serine-rich

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39	39	9	9	39	39	39	39	39.5	39.5	39.5	40	40	40	40	40
45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.3	45.9	45.9	45.9	46.5	46.5	46.5	46.5	46.5
318	270	239	231	186	146	141	129	968	860	859	866	844	665	662	649
2	N	N	N	Ŋ	1-4	N	N	N	N	2	N	N	N	N	N
T29785	F84255	G72455	T23136	S35057	HBOWP	T51642	F72261	AD0514	T38813	T01672	T10587	T43112	T04290	T18233	T01882
hypothetical prote	hypothetical prote	probable glucose-1	hypothetical prote	NADH2 dehvdrogenas	hemoglobin heta ch	probable transcrip	hypothetical prote	probable ATP-denen	hypothetical prote	envelone nolymnte	serine/threonine-s	hypothetical prote	hypothetical prote	probable transcrip	hypothetical prote

ALIGNMENTS

:CDH5 erences: GDB:134230; OMIN:601120 erences: GDB:134230; OMIN:601120 ion: 16q22.1-16q22.1 ly: cadherin; cadherin repeat homology calcium binding; cell adhesion; duplication; glycoprotein; in: signal sequence #status predicted <pro> oduct: cadherin 5 #status predicted <art> main: propeptide #status predicted <art> main: extracellular #status predicted <art> main: extracellular main: cadherin repeat homology <cr2> omain: cadherin repeat homology <cr3> omain: cadherin repeat homology <cr4> omain: cadherin repeat homology</cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr4></cr3></cr2></art></art></art></pro>	A; Residues: 5-516, 'I', 518-784 <suz> A; Cross-references: EMBL:X59796; NID:g639976; PIDN:CAA42468.1; PID:g29593 R; Lampugnani, M.G.; Resnati, M.; Raiteri, M.; Pigott, R.; Pisacane, A.; Houen, G.; Ruco, J. Cell Biol. 118, 151-1522, 1992 A; Title: A novel endothelial-specific membrane protein is a marker of cell-cell contacts A; Reference number: A43418; MUID:92394977; PMID:1522121 A; Accession: A43418 A; Residues: 48-60, 'X', 52, 'X', 64;108-116, 'X', 118-123;237-238, 'X', 240, 'X', 242-252, 'X', 254-24, Experimental source: cultured endothelial cells A; Note: sequence extracted from NCBI backbone (NCBIP:113040, NCBIP:113045, NCBIP:113047, C; Comment: Cadherins mediate calcium-dependent intercellular adhesion, and are thought to</suz>	E> MBL:X79981; NID:g599833; PIDN:CAA56306.1; PID:g599834 .; Tanihara, H. 0, 1991 the cadherin family: evidence for eight new cadherins 24305; MUID:91283540; PMID:2059658	cadherin 5 precursor - human N;Alternate names: 7B4 antigen; cadherin, endothelial-specific; VE-cadherin C;Species: Homo sapiens (man) C;Date: 30-Jun-1993 #sequence revision 13-Sep-1996 #text_change 22-Jun-1999 C;Accession: \$49893; \$24305; A43418 R;Breviario, F.; Caveda, L.; Corada, M.; Martin-Padura, I.; Golay, J.; Introna, M. submitted to the EMBL Data Library, June 1994 A;Description: Molecular and functional properties of VE-cadherin (7B4/cadherin-5) A;Reference number: \$49893
transmembrane prot	ouen, G.; Ruco, -cell contacts 2-252,'X',254-; NCBIP:113047,	ı ıs in nervous t	in 99 trona, M.; Lamp therin-5) a nov

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C;Species: Listeria monocytogenes
C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 27-Nov-2001
C;Accession: AI1306
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.;
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, L.; Dussurget, O.; Entian, K.D.; J.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; J.; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; J.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; J.; Dussurget, O.; Entian, C.; Dussurget, O.; Ent
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C; Genetics:
A; Gene: 1mo1857
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Science 294, 849-852, 2001
A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.;
ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.;
A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
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A;Molecule type: DNA
A;Residues: 1-77 <GLA>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Mcok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland, A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: A11678
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; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Status: preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cross-references: GB:NC_003210; Experimental source: strain EGD-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Jones, L.M.; Karst,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity nes 8; Conserv
                                                                                                                                           Local Similarity nes 8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1 DEIWNOMHIDEEKN 14
       62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DELWDAYLLDEEKNK 76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DEIWNOMHIDEEKNE 15
                                                                     DEIWNOMHIDEEKNE
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                                                                                                                                                      Conservative
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53.3%;
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                                                                                                                                                                                57.0%;
53.3%;
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Pred. No. 0.36;
                                                                                                                                                                                Score 49; I
Pred. No. 0
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                                                                                                                                                      4;
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                                                                                                                                                                                                                    Length
                                                                                                                                                  Indels
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Voss, H.; Wehland,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
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Fsihi, H.
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                      RESULT
S55089
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Best Local 9
                                                                                                                                                                                                                                                                                                     Matches
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hypothetical protein F42C5.4 - Caenorhabditis elegans
C.Species: Caenorhabditis elegans
C.Date: 20-Sep-1999 #sequence_revision 20-Sep-1999 #text_change 24-Nov-1999
C.Accession: T16338
                                                                                                                                                                                                                                                                                                                                                                                                                              R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Cho A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E. Nature 390, 249-256, 1997

A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler iech, J.; Harwood, C.R.; Henaut, A., Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F. Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, A.; Lardinois, K.; Lapidus, A.; Lardinois, K.; Mathers: Lauber, J.; Lazarevic, V.; Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle Y., Mithers: Schleich, S.; Schroetter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, T.; Winters, P.; Wipat, A.; Yamamoto, H.; Yamane, K.; Yasumoto, K.; Yata, K.; Yoshida, K. A; Althors: Yoshikawa, H.; Danchin, A. A; Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis. A; Reference number: A69580; MUID:98044033; PMID:9384377
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Description: The s
A; Reference number:
A; Accession: T16338
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Introns: 20/1; 43/1; 106/3; C;Superfamily: Caenorhabditis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Bacillus subtilis
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 15-Oct-1999
C;Accession: C69673
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          penicillin-binding protein pbpX - Bacillus subtilis C;Species: Bacillus subtilis
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                                                                                                                                                                                                                                                                                                                                              A; Status: preliminary; nucleic acid sequence not shown; translation \mathtt{A}; \mathtt{Molecule} type: \mathtt{DNA}
                                                                                                                                                                                                                                                A;Cross-references: GB:Z99112; GB:AL009126; NID:g2633902; PIDN:CAB13568.1; PID:e1185286; A;Experimental source: strain 168
                                                                                                                                                                                                                                                                                                                   A;Residues: 1-391 <KUN>
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                                                                                             Best Local Similarity
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IWNOMHIDEEKNE 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         54.7%;
87.5%;
                                                                                             52.3%;
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Pred. No. 13;
                                                                                             Score 45;
Pred. No.
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                                                                                                    DB
14;
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                                                                                                                               Length 391;
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A;Introns: 16/2; 71/3; 115/3; 289/1; 528/3
C;Superfamily: serine C-palmitoyltransferase chain LCB2; glycine C-acetyltransferase C;Keywords: acyltransferase; coenzyme A; phosphoprotein; pyridoxal phosphate F;178-531/Domain: glycine C-acetyltransferase homology <GGAs
F;384/Binding site: pyridoxal phosphate (Lys) (covalent) #status predicted
                                                                                                                                  A;Gene: CESP:F43H9.2
                                                                                                                                                                             A;Cross-references: EMBL:U50307; pIDN:AAA92303.1; CESP:F43H9.2
A;Experimental source: strain Bristol N2
                                                                                                                                                                                                                                     A; Molecule type: DNA
A; Residues: 1-558 < WUX>
                                                                                                                                                                                                                                                                             A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                               A;Description: The sequence
A;Reference number: Z20629
A;Accession: T29503
                                                                                                                                                                                                                                                                                                                                               R;Wu, X.; Le, T.
submitted to the EMBL Data Library, Februa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    serine C-palmitoyltransferase (EC 2.3.1.50) F43H9.2 [similarity] - Caenorhabditis elegan
C;Species: Caenorhabditis elegans
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change_09-Jun-2000
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F;1-487/Domain: biotin carboxylase homology <BCH>
F;615-687/Domain: lipoyl/biotin-binding homology
F;615-687/Domain: lipoyl/biotin-binding homology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Kearsey, S.E.
submitted to the EMBL Data Library, April 1993
A;Description: Identification of an Saccharomyces cerevisiae gene closely related
A;Reference number: S41802
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    T29503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Map position: 13R
C;Superfamily: human acetyl-CoA carboxylase; biotin carboxylase homology; lipoyl/biotin-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           probable acetyl-CoA carboxylase (EC 6.4.1.2) HFA1 - yeast (Saccharomyces cerevisiae) N;Alternate names: protein YM8261.01c; protein YM8325.08c; protein YMR207c C;Species: Saccharomyces cerevisiae C;Date: 08-Uul-1995 #sequence_revision 05-Dec-1997 #text_change 11-Jan-2002 C;Accession: S55089; S41802; S59447 R;Dedman, K.; Brown, D.; Bowman, S. submitted to the EMBL Data Library, June 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;654/Binding site: biotin (Lys)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:Z48755; MIPS:YMR207c; NID:g736296; PIDN:CAA88647.1; PID:g76318:
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A;Accession: S59447
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: MIPS:YMR207c; SGD:S0004820
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                                                                                                                                                             ;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                            Accession:
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Best Local :
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Residues: 1-833 <DED>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         812-2123 <ODE>
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3. 10, 'L', 512-799 <KEA>
3. rences: EMBL: Z22558; NID: 9296212; PIDN: CAA80280.1; PID: 9388250
rn: blished sequence extends beyond the amino end
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                            T29503
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                       #sequence_revision 15-Oct-1999 #text_change 09-Jun-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            52.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AB972
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 45;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                          February 1996
legans cosmid F43H9
     (Lys)
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     (covalent)
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#status predicted
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RESULT
C89768
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                                                            밁
                                                                                    S
                                                                                                                                                                                  A;Gene: hisD; BU100
C;Superfamily: histi
C;Keywords: oxidored
                                                                                                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-435 <STO>
                                                                                                                                                                                                                                           A; Experimental source: strain
                                                                                                                                                                                                                                                          A; Cross-references: GB: AP000398;
                                                                                                                                                                                                                                                                                                       A; Status: preliminary
                                                                                                                                                                                                                                                                                                                       A; Reference number: A; Accession: C84941
                                                                                                                                                                                                                                                                                                                           A;Title: Genome sequence of the endocellular bacterial symbiont of aphids Buchnera sp. A;Reference number: A84930; MUID:20445173; PMID:10993077
                                                                                                                                                                                                                                                                                                                                                                R;Shigenobu, S.; Wa
Nature 407, 81-86,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               C84941
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A;Molecule type: DNA
A;Residues: 1-367 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Gene: CAC0897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Cross-references: GB:AE001437; PIDN:AAK78873.1; PID:g15023795; GSPDB:GN00168
A;Experimental source: Clostridium acetobutylicum ATCC824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Title: Genome Sequence and Comparative Analysis of the A;Reference number: A96900; MUID:21359325; PMID:21359325 A;Accession: F97010
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Clostridium acetobutylicum
C;Date: 14-Sep-2001 #sequence_revision 14-Sep-2001 #text_change 14-Sep-2001
C;Accession: F97010
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                                                                                                                      Matches
                                                                                                                                     Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local :
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                                                                                                                                                                                ly: histidinol dehydrogenase; histidinol
oxidoreductase
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                                                                                                                      6.
                                                                                                                                     Similarity
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                                                        WNKLHPDEQK 19
                                                                                    WNOMHIDEEK 13
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                                                                                                                     Conservative
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                                                                                                                                50.0%;
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                                                                                                                                                                                                                                                                                                                                                                             H.; Hattori, M.; Sakaki,
                                                                                                                                                                                                                                           APS
                                                                                                                                                                                                                                                        GSPDB:GN00144
                                                                                                                                Score 43;
Pred. No.
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Pred. No.
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Pred. No.
                                                                                                                   Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31;
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                                                                                                                                                                                          dehydrogenase homology
                                                                                                                                              Length 435;
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                                                                                                                Gaps
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conserved hypothetical protein C; Species: Staphylococcus aure

SA0083 [imported] -

Staphylococcus

aureus

(strain

N315)

Gaps

0

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C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 22-Oct-2001
C;Accession: C89768
R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.;
ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu,
C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K.
Lancet 357, 1225-1240, 2001
A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus.
A;Reference number: A89758; MUID:21311952; pMID:11418146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: GB:BA000018; PID:gl3700003; PIDN:BAB41302.1; GSPDB:GN00149
A;Experimental source: strain N315
C;Genetics:
A;Gene: SA0083
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hypothetical protein F26H9.1 - Caenorhabditis elegans
C;Species: Caenorhabditis elegans
C;Species: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 29-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity
7; Conserv:
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A;Molecule type: DNA
A;Residues: 1-444 <KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:Z75535; PIDN:CAA99829.1; GSPDB:GN00019; CESP:F26H9.1 A;Experimental source: clone F14B4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   submitted to the EMBL Data Library, A;Reference number: Z19337
A;Accession: T20872
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C;Species: Lotus japonicus
C;Date: 19-Mar-1997 #sequence_revision 19-Mar-1997 #text_change 23-Mar-2001
C;Accession: S49446
C;Accession: S49446
C;Accession: S49446
R;Schauser, L.; Borg, S.; Poulsen, C.
submitted to the EMBL Data Library, August 1994
A;Description: Pzf, a gene isolated from a Lotus japonicus nodule cDNA library, encodes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-524 <WIZ>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Status: preliminary; translated from GB/EMBL/DDBJ
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                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Map position: 1
A;Introns: 49/2; 99/1; 136/1; 186/1; 228/3; 287/3; 346/1; 403/1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Experimental source: clone F26H9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Reference number: Z19422
A; Accession: T21443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        R;Baynes, C. submitted to the EMBL Data Library, November 1996
                                                                                                                                              RING-finger protein -
                                                                                                                                                                       S49446
                                                                                                                                                                                          RESULT 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:Z81516; PIDN:CAB04206.1; GSPDB:GN00019; CESP:F26H9.1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A; Molecule type: DNA
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                                                                                                                                                                                                                                                                   488
                                                                                                                                                                                                                                                                                                                                                          Similarity 6; Conserv
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                                                                                                                                            Lotus japonicus
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Pred. No.
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Pred. No.
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K.;
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A;Accession: S49446
A;Molecule type: mRNA
A;Residues: 1-549 <SCH>
A;Cross-references: EMBL:Z36750; NID:g558544; PIDN:CAA85321.1; PID:g558545
A;Cross-references: EMBL:Z36750; NID:g558544; PIDN:CAA85321.1; PID:g558545
A;Experimental source: strain Gifu B-129
C;Superfamily: RING finger homology
C;Keywords: DNA binding; zinc
C;Keywords: DNA binding; zinc
F;492-543/Domain: RING finger homology <RNG>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.; Zeng, Q.; Gibson, .; Daly, M.J.; Bennett, G.N.; Koonin, E.V.; Smith, D.R. J. Bacteriol. 183, 4823-4838, 2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid ABC transporter (binding protein) homolog lmo1738 [imported] - Listeria monoc: C;Species: Listeria monocytogenes
C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 14-Dec-2001
C;Accession: AB1292
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Cross-references: GB: AB: 001437; PIDN: AAK81504.1; A; Experimental source: Clostridium acetobutylicum
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A; Residues: 1-201 < KUR >
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                                                                                                                                                                                                                                                  Science 294, 849-852, 2001
A; Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AB1292
                                                                                                                                                                                                                                                                                                                                                                                                        R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.;
Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; F
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                                                            A;Gene: lmo1738
C;Superfamily:
                                                                                                                                                                              A; Molecule type: DNA
A; Residues: 1-271 <GLA>
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Matches 6
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Maitournam, A.; Ma Voss, H.; Wehland,

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amino acid ABC transporter (binding protein) homolog lin1849 [imported] - Listeria innocua C;Species: Listeria innocua C;Species: Listeria innocua C;Species: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 14-Dec-2001 C;Accession: AH1663 R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H. Science 294, 849-852, 2001 A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Ma, C.; Schlueter, T.; Simoes, N.; Tisterrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland, A;Reference number: AB1077; MUID:21537279; PMID:11679669 A;Accession: AH1663 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-271 cGLA> A;Cross-references: GB:AL592022; PIDN:CAC97080.1; PID:g16414351; GSPDB:GN00178 A;Gene: lin1849 C;Superfamily: lysine-arginine-ornithine-binding protein
Search completed: July 29, 2004, 11:37:49 Job time : 11.3333 secs
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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-	-	Abg10004 Novel	Abg35833 Human	-				Abb18472 Pro				Aam14054 Per	_	-	Abm73085 Sta	Abu23606 Pro	Aao05753 Hum	Abp34429 Human		Abp28693 Str
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RESULT 1 AAU08777 VE-cadherin N-terminal domain 1 antibody binding peptide #1. 27-FEB-2002 AAU08777 standard; peptide; (first entry) 15 A

ALIGNMENTS

VE-cadherin; antibody binding peptide; angiogenesis; neoplastic disease; VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma, carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder; ge-related muscular degeneration; tumour neovascularisation; VE-cadherin N-terminal domain 1.

Mammalia.

WO200175109-A2

30-MAR-2001; 2001WO-US010505.

31-MAR-2000; 2000US-00540967

IMCLONE SYSTEMS INC.

Liao F, Hicklin ᄓ, Bohlen

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WPI; 2001-656988/75.

New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.

Claim 1; Page 32; 44pp; English.

The method relates to an antibody or an antibody fragment, capable of specifically binding to a Vz-cadherin, and of inhibiting Vz-cadherin mediated adherens junction formation in vitro, but does not exert any significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to ວ

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RESULT 2
AAU0872
ID AAU0872
AC AAU0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VE-cadherin; antibody binding peptide; angiogenesis; neoplastic disease; VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability, solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma; carcinoma; sarcoma; adenocarcinoma; adenocarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; lage-related muscular degeneration; tumour neovascularisation; vercadherin N-terminal domain 1.
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                                                                                                                                      New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
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                                                                                                                                                                                                                                                                                                                                                                                                                                SYSTEMS INC.
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                                                                                                                                                                                                                                                                                                                                                           Bohlen P;
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Pred. No.
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The method relates to an antibody or an antibody fragment, capable of

New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.

WPI; 2001-656988/75

Claim 1; Page 32; 44pp; English

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RESULT 3
AAU08786
AAU08786
AC AAU0
XX AAU0
AC AAU0
XX VZ-C
XX 
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VB-cadherin; angiogenesis; neoplastic disease; VB-cadherin mediated adherens junction formation; autoimmune disease; VB-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma, carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; hibrotic disorder; age-related muscular degeneration; tumour neovascularisation; mouse; vB-cadherin N-terminal domain 1.
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                                                                                                                                                                                                                                                                                                 IMCLONE SYSTEMS INC.
                                                                                                                                                                                                                         Hicklin DJ, Bohlen
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Example 2; Fig 2; 44pp; English.

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RESULT 4
AAU08779
ID AAU0
XX
AAU0
XX
AC AAU0
XX
DT 27-
XX
VE
XW VE
XW VE
XW YE
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                VE-cadherin; antibody binding peptide; angiogenesis; neoplastic disease; VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma; carcinoma; sarcoma; adenocarcinoma; adenocarcoma; adenoma; gene therapy; rescularisation; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder; age-related muscular degeneration; tumour neovascularisation;
                                                                                                                                                                                             31-MAR-2000; 2000US-00540967
                                                                                                                                                                                                                                                              30-MAR-2001; 2001WO-US010505
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      WPI; 2001-656988/75
                                                                 Liao F,
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                                                             Hicklin DJ,
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                                                                                                                               SYSTEMS INC.
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                                                             Bohlen P;
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Pred. No.
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RESULT 5
AAU09785
ID AAU0
XX AAU0
AC AAU0
XX AAU0
XX DT 27-F
XX Huma
XX VE-C
KW VE-C
KW Para
KW Theu
KW Theu
KW Ieuk
KW Carc
KW 1euk
KW VE-C
XW 1euk
KW VE-C
XW 1euk
XW 30-M
XX 31-M
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human VE-cadherin N-terminal domain 1 polypeptide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1; Page 32; 44pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Н
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           15 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          84.9%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 73; DB 4; Lu.
Pred. No. 7.9e-05;
                                                                                                                                                                                                                                                                                                                                                                                                           neovascularisation; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                      disorder;
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31-MAR-2000; 2000US-00540967 30-MAR-2001; 2001WO-US010505.

(IMCL-) IMCLONE SYSTEMS INC

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       consisting to a VE-cadherin, and of inhibiting VE-cadherin consisting the adherent punction formation in vitro, but does not exert any consistent or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a consistency or antibody or antibody fragment is capable of specifically binding to a consistency or antibody or antibody fragment is useful for inhibiting consistency or antibody or antibody fragment is useful for inhibiting consistency or antibody fragment is useful for inhibiting consistency or antibody or antibody fragment is useful for inhibiting consistency of the antibody or antibody fragment is useful for inhibiting consistency of the antibody or antibody fragment is useful for inhibiting consistency of the antibody or antibody is also useful and plaucoma) or tumour consistency of antibody is also useful for treating a cell proliferation consistency and consiste
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Liao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The method relates to an antibody or an antibody fragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 2; Fig 2; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Modulation; nonclassical cadherin mediated cell adhesion; CAR; inhibition; cadherin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-6; cadherin-7; cadherin-8; cadherin-12; cadherin-15; T-cadherin; PB-cadherin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       terminal domain 1 polypeptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAY64578;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY64578 standard; peptide; 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                               cadherin related neuronal receptor; LI-cadherin; protocadherin;
desmoglein; desmocollin; calcium binding; cancer; tumour; obesity;
       05-MAY-1998;
                                                                                                                                                                                                                                                                                                            Mammalia.
                                                                                                                                                                                                                                                                                                                                                                                   neurological
                                                                                                                                                                                                                                                                                                                                                                                                                                   rheumatoid
                                                                               05-MAY-1999;
                                                                                                                                                      11-NOV-1999.
                                                                                                                                                                                                                                     WO9957149-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            104 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DWIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DEIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                           arthritis; multiple sclerosis; diabetes; metastasis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                           disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cadherin extracellular domain SEQ ID NO:6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
       98US-00073040
                                                                                   99WO-CA000363
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92.9%;
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Pred. No. 0.00068;
0; Mismatches 1
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CC expressing cell, preventing or treating obesity in a mammal, stimulating
CC entral nervous system, treating a demyelinating drug delivery to the
CC central nervous system, treating a demyelinating neutrological disease,
CC increasing vasopermeability in a mammal, enhancing adhesion of
CC nonclassical cadherin-expressing cells, inhibiting synaptic stability in
CC a mammal, or preventing pregnancy in a mammal. They can also be used for
CC e.g. enhancing or directing neurite outgrowth, facilitating wound healing
CC or reducing scar tissue, or enhancing adhesion of foreign tissue in a
CC mammal. They can also be used for treating e.g. psoriasis, arthritis, age
CC related macular degeneration, multiple sclerosis and diabetes. The
CC products can also be used for detection and diagnosis and in bioreactors.
CAMY60592 to AMY64572 represent specifically claimed peptides, and
CC AMY60573 to AMY64643 and AMZ33183 to AMZ33186 represent sequences used in
CC the exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RESULT
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Best Local
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20-JAN-1999;
08-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  nonclassical cadherin-mediated functions. They can be used for e.g. inhibiting adhesion of nonclassical-cadherin expressing cells in a mammal, enhancing delivery of a drug through the skin of a mammal, enhancing delivery of a drug to a tumour in a mammal, treating cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention describes cadherin modulating agents comprising peptides which comprise a nonclassical cadherin recognition (CAR) sequence. The MAs can be used for modulat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 2; 252pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (ADHE-) ADHEREX TECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                Human, KV protein; KVE702; angiogenic factor antagonist; angiogenesis; vascular endothelial structure regulator; cancer; vascular endothelium; tumour; blood vessel; epithelial cell; cytostatic; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Human recombinant KVE702 polypeptide.
                                                                                                                                                                                                       Synthetic
                                                                                                                                                                                                                                     Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAU11276;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAU11276 standard; protein;
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99US-00234395.
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92.9%;
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Pred. No. 0.00
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04-MAY-2001; 2001WO-GB001956.

08-NOV-2001

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Best Local :
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N-PSDB; AAS16975
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; KV protein; KVE702; angiogenic factor antagonist; angiogenesis; vascular endothelial structure regulator; cancer; vascular endothelium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human
                                                                                                                          (UYWA-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAU11279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAU11279 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 566 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and also cells and compositions containing the sequences, are useful in treating or preventing cancer or angiogenesis in mammals, in particular humans. KV proteins are also useful for regulation of the development of blood vessels and their formation, in the vascular endothelium and/or tumour. The KVE702 gene and its fragments are useful in transfection of human epithelial cells and to generate products suitable for angiogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      intervention. This sequence represents the human KVE702 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention relates to recombinant nucleic acid sequences that encode both an angiogenic factor antagonist and a vascular endothelial structure regulator, collectively referred to as a KV protein KV DNA and proteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel nucleic acid for inhibition of angiogenesis and prophylaxis or treatment of cancer, comprises both an angiogenic factor antagonist and vascular endothelial structure regulator.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Fig 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-MAY-2000; 2000GB-00010630
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (UYWA-) UNIV
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DB; AAS16965.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 recombinant
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                                                                                                                          VIND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DEIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DWIWNOMHIDEEKN 487
                                                                                                                       WALES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               vessel; epithelial cell; cytostatic; gene therapy; J37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WALES COLLEGE OF MEDICINE.
                                                                                                                                                                                                                                                                                                                                                                                                       518
                                                                                                                                                                                                                                                                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         J37 polypeptide.
                                                                                                                     COLLEGE OF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            84.9%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                          "Encoded by ATC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 594 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 73;
Pred. No.
                                                                                                                     MEDICINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         .0044;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              <u>ت</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 566
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   structure
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RESULT 9
AAW25634
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Best Local S
Matches 13
                                            Claim
                                                                                        N-PSDB; AAT85401
                                                             Human and rat cadherin polypeptide(s) - mediate cell-cell adhesion
                                                                                                 WPI; 1997-362997/33.
                                                                                                                                                                     17-APR-1992;
19-APR-1993;
                                                                                                                                                                                                        01-NOV-1994;
                                                                                                                                                                                                                               08-JUL-1997.
                                                                                                                                                                                                                                                                                                                       Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention relates to recombinant nucleic acid sequences that encode both an anglogenic factor antagonist and a vascular endothelial structure regulator, collectively referred to as a KV protein. KV DNA and proteins, and also cells and compositions containing the sequences, are useful in treating or preventing cancer or anglogenesis in mammals, in particular humans. KV proteins are also useful for regulation of the development of blood vessels and their formation, in the vascular endothelium and/or human epithelial cells and to generate products suitable for anglogenesis intervention. This sequence represents the human J37 protein used in methods of the invention
                                                                                                                                                (DOHE-) DOHENY
                                                                                                                                                                                                                                                                                       Misc-difference
                                                                                                                                                                                                                                                                                                                                             superfamily;
                                                                                                                                                                                                                                                                                                                                                         Human; cadherin;
                                                                                                                                                                                                                                                                                                                                                                                 Human cadherin-5.
                                                                                                                                                                                                                                                                                                                                                                                                       25-MAR-2003
03-NOV-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW25634;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAW25634 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 594 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel nucleic acid for inhibition of angiogenesis treatment of cancer, comprises both an angiogenic vascular endothelial structure regulator.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Fig 15; 66pp; English.
                                           1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          49
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     l Similarity
                                          Col 69-72;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DWIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                             cytoskeleton;
                                                                                                                                                                                                                                                                                                                                                                                                    (revised)
(first entry)
                                                                                                                                               EYE INST.
                                                                                                                                                                     92US-00872643
93US-00049460
                                                                                                                                                                                                       94US-00332638
                                                                                                                                                                                                                                                                                       622
                                                                                                                                                                                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                         /note= "encoded by AAG
                                                                                                                                                                                                                                                                                                                                                         rat;
                                       56pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.9%;
                                                                                                                                                                                                                                                                                                                                                    calcium-dependent cell adhesion protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       62
                                                                                                                                                                                                                                                                                                                                             eatenin;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              780
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 73;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                              ΑA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                             cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0.0047;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 594;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and prophylaxis or factor antagonist a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
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This sequence represents human cadherin-5. The invention specifically provides details of human cadherin-5, -8, -11, -12 and -13, and rat cadherin-8, -5, -11 and -13. Cadherins are calcium-dependent cell

5

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ARBSULT 10
AAW13130
ID AAW1313
XX 25-MA
DT 25-MA
DT 13-MB
XX Full
XX Ca2+
KW Ca2+
KW bindd
XX bindd
XX bindd
XX Ca2+
X
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               adhesion proteins. They are glycosylated integral membrane proteins that have an N-terminal extracellular domain that determines binding specificity, a hydrophobic membrane spanning region and a C-terminal cytoplasmic domain, which is highly conserved among members of the superfamily. The C-terminal domain interacts with the cytoskeleton through eatenins and other cytoskeleton-associated proteins. The novel cadherin proteins may be used in the analysis of the role of cadherins in various cancers. Sequence analysis of the cadherin proteins also allows investigation of the structure and function of cadherin. The cadherin proteins may be isolated by using anti-cadherin antibodies. These antibodies may also be used to modulate the activity of cadherin and to determine the tissue specific distribution of stribution pattern. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 780 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-APR-1992;
19-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US5597725-A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     binding antagonist; calcium ion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Ca2+ dependent; cell adhesion protein; placental; cadherin; rat; brain; human; antibody; purification; determination; tissue expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Full length human cadherin-5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAR-2003
13-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW13130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW13130 standard; protein; 780 AA.
                                                                      cadherin cDNA. Antibodies or fragments that specifically bind the human cadherin can be used to purify the cadherin, determine its tissue expression and antagonise its ligand/antiligand binding activities. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-JAN-1997
                                                                                                                                                                                                         The present sequence is full length human cadherin-5, which is a Ca2+ dependent cell adhesion protein. The human cadherin cDNA was isolated from a placental cDNA library, using probes based on homologous rat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  26-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                 Claim 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Antibodies to cadherin proteins - useful as cadherin antagonists,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1997-108328/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (DOHE-) DOHENY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DWIWNQMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                              75-78; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EYE INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         92US-00872643.
93US-00049460.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94US-00188228
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               84.9%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 73;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; DB 2;
. 0.0063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 780
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   etc
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Sequence 780

Query Match Best Local Similarity

84.9%; 92.9%;

Score Pred.

73; No.

DB 5; 0.0064;

Length 784;

Sequence 784 AA;

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                       Creaming the present invention describes a pharmaceutical composition for treating cancer associated with abnormally high beta-catenin activity. The Comparaceutical composition comprises a gene therapy vehicle harbouring a copolynucleotide that contains: (i) a nucleotide sequence encoding a copolynucleotide that contains: (i) a nucleotide sequence encoding a coportion and an extracellular portion of the cadherin, and includes a beta catenin binding domain; and (b) an upstream promoter for directing command comparaceutical composition for treating cancer associated with abnormally high activity levels of beta-catenin comprising a gene therapy vehicle harbouring a polynucleotide cotate contains: (a) a nucleotide sequence encoding an o-catenin; and (b) an upstream promoter for directing expression of the o-catenin; and (b) can upstream promoter for directing expression of the o-catenin; and (c) and can be used in the suppression of beta-catenin-mediated with abnormally high activity levels of beta-catenin such as colon cancers and canbournally high activity levels of beta-catenin such as colon cancers and commandation cells. The present sequence represents human VE-cadherin which consider in the exemplification of the present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cadherin; alpha-catenin; cancer; beta-catenin binding domain; melanoma; o-catenin; colon cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          30-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABB81477;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ABB81477 standard;
                                                                                                                                                                                                                                                                                                                                                                    New construct encoding soluble cytoplasmic portion of cadherin including beta catenin binding domain useful in treating cancer associated with high beta-catenin activity e.g. colon cancer and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ABN89394
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    26-MAY-1998;
26-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JUL-2001; 2001US-00905983.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-APR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         US2002045591-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                          Example 3; Page 56-58; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2002-499105/53
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Geiger B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (GEIG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (SADO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VE-cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ) GEIGER B.
) BEN-ZE'EV A.
) SADOT E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DWIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DEIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Ben-Ze'ev
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98IL-00124650.
99US-00318633.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein; 784 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  84.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Þ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sadot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 73; I
Pred. No. 0.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ID NO:52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     .0063;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 780;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
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Matches

13;

Conservative

<u>,</u>

Mismatches

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                                                                                                 The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method compositions contacting a biological sample from the patient with a colymucleotide that selectively hybridises to a sequence at least 80% composition of the angiogenesis-associated human polymucleotide sequences comprise genes that exhibit changes in composition of time in tissue undergoing composition are useful for diagnosing and treating angiogenesis and composition are useful for diagnosing and treating angiogenesis and composition are also useful in the gene therapy of such disorders. The congiogenesis-associated diseases e.g. cancer. The polymucleotide sequences are also useful in the gene therapy of such disorders. The congiogenesis-associated proteins encoded by the polymucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation.

CC are useful as a vaccine for therapeutic and prophylactic immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 12
ABU03507
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                            Matches
                                          Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    14-FEB-2001; 2001US-00784356.

22-FEB-2001; 2001US-00791390.

19-APR-2001; 2001US-0285475P.

03-AUG-2001; 2001US-0310025P.

13-NOV-2001; 2001US-0310666P.

29-NOV-2001; 2001US-0334244P.
                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                   Detecting angiogenesis-associated transcript in a cell for diagnosing treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue
                                                                                                                                                                                                                                                                                                                                                Example 2; Page 230; 291pp;
                                                                                                                                                                                                                                                                                                                                                                             undergoing angiogenesis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2003-040681/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murray R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           14-FEB-2002; 2002WO-US004915.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           10-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (EOSB-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    W0200279492-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human; angiogenesis-associated transcript; angiogenesis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      angiogenesis-associated disease; cancer; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Angiogenesis-associated human protein sequence #52.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABU03507 standard;
                           al Similarity
13; Conserv
1 DEIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABX08791.
                                                                                    784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DWIWNOMHIDEEKN 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DEIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Glynne R,
                           Conservative
                                                                                    AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           BIOTECHNOLOGY INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                       84.9%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Watson SR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             14
                        Score 73; DB
Pred. No. 0.00
0; Mismatches
                           0;
                                                                                                                                                                                                                                                                                                                                                English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aziz
                  DB 6;
. 0.0064;
1;
                                                6; Length 784;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ţ,
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                     0
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                     Gaps
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                   0
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cc transcript in a cell from a patient, comprising contacting a biological cc sample from the patient with a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits cc increased or decreased expression in lung cancer samples. Lung cancer cc associated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer-associated polypeptide, for compound that modulates a lung cancer-associated polypeptide, for cc cancer in a patient and for treating a mammal having lung cancer by cc administering a modulatory compound identified. The methods are useful cc for treating lung cancer, such as small cell lung cancer non-small cell cc lung cancer or other benign or precancerous lesions, e.g. atelectasis, bypersensitivity pneumonitis, interstitial pulmonary fibrosis, asthma and cc bronchiectasis. The genes, polynucleotides and polypeptides are useful compounds that modulate lung cancer, such as antibodies. Sequences compounds that modulate lung cancer, such as antibodies. Sequences compounds that modulate lung cancer, such as antibodies. Sequences compounds that modulate lung cancer, such as antibodies. Sequences compounds that modulate lung cancer such as antibodies. Sequences compounds that modulate lung cancer such as antibodies. Sequences compounds that present lung cancer such as antibodies. Sequences compounds that present lung cancer such as antibodies. Sequences compounds that present lung cancer such as antibodies. Sequences compounds that present lung cancer associated polypeptides are useful compounds that present lung cancer such as antibodies. Sequences compounds that present lung cancer associated polypeptides are useful compounds. Sequences compounds that present lung cancer associated polypeptides compounds that present lung cancer associated polypeptides are useful compounds. Sequences compounds that present lung cancer associated polypeptides as the compounds that present lung cancer associated polypeptides as the 
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ABU56570
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Detecting a lung cancer-associated transcript in a cell from a patient for treating lung cancer, by contacting a biological sample from the patient with a polynucleotide that exhibits increased or decreased
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        18-APR-2001; 2001US-0284770P.
10-MAY-2001; 2001US-0290492P.
09-NOV-2001; 2001US-0339245P.
13-NOV-2001; 2001US-0350666P.
29-NOV-2001; 2001US-0334370P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 27; Page 314; 453pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              expression in lung
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2003-093161/08.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aziz N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (EOSB-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               antiinflammatory; antiasthmatic; non-small cell lung cancer; atelectismall cell lung cancer; benign lesion; precancerous lesion; bronchit; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrosis; asthma; bronchiectasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-APR-2002; 2002WO-US012476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Lung cancer-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABU56570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU56570 standard; protein; 784 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer-associated polypeptide; cytostatic; emphysema; inflammatory; antiasthmatic; non-small cell lung cance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EOS BIOTECHNOLOGY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Murray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DWIWNQMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; 2001US-0290492P.
; 2001US-0339245P.
; 2001US-0350666P.
; 2001US-0334370P.
; 2002US-0372246P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           polypeptide #163.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   bronchitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           atelectasis;
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Query Match Best Local S Matches 13

Similarity

84.9%; ilarity 92.9%; Conservative

Score 73; DB Pred. No. 0.00 0; Mismatches

DB 6; 0064;

Length 784; Indels

0

Gaps

0;

0

Sequence

784

A

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ADA03363
ID ADA03
AC CYTOS
AC CONS
AC ADA03
AC ADA03
AC CONS
AC CONS
AC ADA03
AC
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RESULT 15
ABB49545
ID ABB49
XX
AC ABB49
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AC ABB49
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AC ABB49
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AC ABB49
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                endostatin receptor; angiogenesis inhibitor; human; vascular endothelial cadherin; angiogenesis; blood vessel; diabetic retinopathy; rheumatoid arthritis; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Human vascular endothelial cadherin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                06-NOV-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADA03363;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to a DNA encoding an endostatin receptor protein (human vascular endothelial (VE) cadherin (I)) or its partial peptides or encoding a protein derived from (I) by addition, deletion or substitution of one or more amino acid residues and having similar binding activity to endostatin. The sequence can be used in the regulation of angiogenesis in the treatment and prevention of diseases associated with the formation of new blood vessels, including cancer, cancer proliferation, diabetic retinopathy and rheumatoid arthritis. This sequence corresponds to the VE cadherin protein which serves as an endostatin receptor protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial cadherin is a receptor to endostatin for screening endostatin agonists and antagonists as angiogenesis inhibitors and remedies for cancer development and proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28-OCT-2002; 2002WO-JP011143.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Kubota S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-OCT-2001; 2001JP-00333295
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO2003038096-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 2; Page 44-47; 56pp; Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (KUBO/) KUBOTA S. (NEMO/) NEMOTO T.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
         05-FEB-2002
                                                                ABB49545;
                                                                                                                          ABB49545 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            784
                                                                                                                                                                                                                                                                                                              DEIWNQMHIDEEKN 14
                                                                                                                                                                                                                                                                      DWIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nemoto T;
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA,
         (first entry)
                                                                                                                          protein;
                                                                                                                                                                                                                                                                                                                                                                                                                      84.9%;
92.9%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61
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                                                                                                                                77
                                                                                                                                                                                                                                                                                                                                                                                                                         Score 73; DB 6;
Pred. No. 0.0064;
                                                                                                                                A
A
                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Length 784;
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                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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Listeria monocytogenes protein #2249.

Antibacterial; gene therapy; vaccine; biosynthesis; biodegradation; vitamin B12; bacterial infection; disease.

Listeria monocytogenes.

MO200177335-A2.

18-OCT-2001.

11-APR-2001; 2001WO-FR001118.

11-APR-2000; 2000FR-00004629.

(INSP ) INST PASTEUR.

Buchrieser C, Frangeul L, Couve E, Rusniok C, Fsihi H, Dehoux P; Dussurget O, Chetouani F, Nedjari H, Glaser P, Kunst F, Cossart P; Dussurget O, Chetouani F, Nedjari H, M, Ng E, Vazquez-Boland JA; Daniels J, Goebel W, Kreft J, Kuhn M, Ng E, Vazquez-Boland JA; Deminguez-Bernal G, Garrido-Garcia P, Tierrez-Martinez A, Amend A; Chakraborty T, Domann E, Hain T, Berche P, Charbit A, Durant L; Perez-Diaz J, Baquero F, Garcia Del Portillo F, Gomez-Lopez N; Maduenio E, De Pablos B, Wehland J, Kaerst U, Entian K, Hauf J; Rose M, Voss H;
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Genomic sequence for Listeria monocytogenes, useful e.g. for treatment and prevention of Listeria and related bacterial infections, and related polypeptides.

WPI; 2002-010914/01.

Claim 6; SEQ ID NO 2250; 192pp; French.

XX

The present invention relates to the genome sequence of Listeria CC monocytogenes EGD-e (see ABA03041). The genome sequence and fragments of CC it are useful for selecting probes and primers for detecting genes in L. CC monocytogenes and related organisms, and for studying genetic CC monocytogenes and other genomes. The present sequence is a protein CC encoded by the genome sequence of the present invention. Proteins CC expressed from the genome sequence are useful for raising specific CC antibodies, identification of L. monocytogenes and related organisms, and CC for biosynthesis and biodegradation, especially biosynthesis of Vitamin CC B12. The genome sequence and proteins encoded by it are also useful for selecting compounds that regulate gene expression and cell replication and modulate L. monocytogenes-related diseases. In addition, the genome compositions for the treatment or prevention of infections by L. concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related organisms. Note: The sequence data for this concepts and related proteins encoded by it are also sequence and proteins and related organisms. Note: The sequence data for this concepts and related proteins encoded by the proteins and concepts and related proteins and concepts and concepts and related proteins and concepts and related proteins and concepts and related proteins and concepts and related prote

Sequence 77 AA;

Query Match
Best Local Similarity 53.3%; Pred. No. 2.2;
Matches 8; Conservative 4; Mismatches 3; Indels 0; Gaps 0;
Matches 15 Conservative 15

Search completed: July 29, 2004, 11:34:52 Job time: 48.6667 secs

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Minimum DB
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Listing first 45 summaries
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seq length: 2000000000
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/cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
/cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
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(c) 1993 - 2004 Compugen Ltd.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

US-10-040-128-2

Sequence 2, Application US/10040128 Publication No. US20020160003A1

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RESULT 2
US-10-040-128-3
; Sequence 3, Application US/10040128
; Publication No. US20020160003A1
; GENERAL INFORMATION:
; APPLICANT: Liao, Fang
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APPLICANT: Hicklin, Daniel J.
APPLICANT: Hicklin, Daniel J.
APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects on TITLE OF INVENTION: Vascular Permeability
FILE REFERENCE: 11245/46976
CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
SOPTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 2
TENGTH. 15
                                                                                                                                                                                                                                              Matches
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Best Local :
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OTHER INFORMATION: synthetic peptide
                                                                                                                                                                                                                                                                                                                                                                             LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
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; APPLICANT: Hicklin, Daniel J.
; APPLICANT: Bohlen, Peter
; TITLE OF INVENTION: Varibody Antagonists of VE-Cadherin Without Adverse Effects (
; TITLE OF INVENTION: Vascular Permeability
; FILE REFERENCE: 11245/46976
; CUGRRENT APPLICATION NUMBER: US/10/040,128
; CUGRENT FILLNG DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
SOFTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 3
SEQ ID NO 3
SEQ ID NO 3
SEQ ID NO 4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; TYPE: PRT ; ORGANISM: Homo sapiens US-10-006-869-6
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US-10-395-032-6
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Best Local Similarity
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SEQ ID NO 6
LENGTH: 108
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Best Local Similarity
Matches 14; Conservat
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Publication No. US20030229199A1
GENERAL INFORMATION:
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CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
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APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
                 SOFTWARE: PatentIn Ver. 2.0 SEQ ID NO 6
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TYPE: PRT
ORGANISM: Artificial Sequence
                                                   CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT FILING DATE: 2003-03-21
NUMBER OF SEQ ID NOS: 4052
                                                                                                                                                                     APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew APPLICANT: Gour, Barbara J.
                                                                                                                 FILE REFERENCE: 100086.407C9
                                                                                                                               TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
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LENGTH: 108
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Pred. No.
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GENERAL INFORMATION:
APPLICANT: Geiger, ev, Avri
APPLICANT: Geiger, ev, Avri
APPLICANT: Sadot, Einat
APPLICANT: Sadot, Einat
TITLE OF INVENTION: METHODS AND THERAPEUTIC COMPOSITIONS FOR TREATING CANCER
TITLE REFERENCE: 01/2236
CURRENT APPLICATION NUMBER: US/09/905,983
CURRENT FILING DATE: 2001-09-28
NUMBER OF SEQ ID NOS: 60
SOFTWARE: Patentin version 3.1
SEQ ID NO 52
LENGTH: 784
TYPE: PRT
ORGANISM: Homo sapiens
US-09-905-983-52
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                                                          PRIOR FILING DATE: 2001-02-22
PRIOR FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: US 60/310,025
PRIOR FILING DATE: 2001-08-03
PRIOR FILING DATE: 2001-08-03
PRIOR APPLICATION NUMBER: US 60/334,244
PRIOR FILING DATE: 2001-11-29
NUMBER OF SEQ ID NOS: 230
SOPTWARE: Patentin Ver. 2.1
SEQ ID NO 105
LENGTH: 784
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ORGANISM:
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APPLICANT:
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APPLICANT: Aziz, Natasha
APPLICANT: Eos Biotechnology, Inc.
APPLICANT: Eos Biotechnology, Inc.
TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis, Compositions and
TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
FILE REFERENCE: 018501-006200US
FILE REFERENCE: 018501-006200US
CURRENT FILING DATE: 2003-02-13
PRIOR APPLICATION NUMBER: US 09/784,356
PRIOR FILING DATE: 2001-02-14
PRIOR FILING DATE: 2001-02-14
PRIOR FILING DATE: 2001-02-14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Murray, Richard APPLICANT: Glynne, Richard
                       ORGANISM: Homo sapiens
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Richard
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100.0%; Pred. No. 4.1
rative 0; Mismatches
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100.0%; Pred. No.
tive 0; Mismatch
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RESULT 9
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                                                                                        Query Match
Best Local Similarity 100.
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CURRENT FILING DATE: 2002-06-19
NUMBER OF SEQ ID NOS: 117
SOFTWARE: Patentin version 3.1
SEQ ID NO 23
                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
APPLICANT: Xie, Ting
TITLE OF INVENTION: METHODS AND COMPOSITIONS
FILE REFERENCE: 40716 (IP-012)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 99
LENGTH: 784
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APPLICANT: Glynne, Richard
APPLICANT: Watson, Susan R.
APPLICANT: Watson, Susan R.
APPLICANT: EOS Biotechnology, Inc.
APPLICANT: EOS Biotechnology, Inc.
APPLICANT: EOS Biotechnology, Inc.
TITLE OF INVENTION: Compositions and Methods of Diagnosis of Angiogenesis,
TITLE OF INVENTION: Modulators
TITLE OF INVENTION: Modulators
TITLE OF INVENTION: Modulators
CURRENT APPLICATION NUMBER: US/10/021,660
CURRENT APPLICATION NUMBER: US/10/021,660
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Best Local (
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PRIOR FILING DATE: 2001-02-14
PRIOR APPLICATION NUMBER: US 09/637,977
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ORGANISM: Homo sapiens
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                                         DWIWNOMHIDEEKN 61
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                                                                     DWIWNOMHIDEEKN 14
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No. US20030152926A1
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100.0%; Pr
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100.0%; Pred. No. 0.00028
tive 0; Mismatches (
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Pred. No. 0.00028;
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                                                                                                   0.00028;
hes 0;
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0.00028;
hes 0; Indels
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                                                                                                                                 Length 784;
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PRIOR FILING DATE: 2000-04-25
PRIOR PELICATION NUMBER: PCT/US01/02623
PRIOR FILING DATE: 2001-01-25
PRIOR APPLICATION NUMBER: US 09/491,404
PRIOR FILING DATE: 2000-01-25
PRIOR APPLICATION NUMBER: PCT/US01/03800
PRIOR APPLICATION NUMBER: PCT/US01/03800
PRIOR FILING DATE: 2001-02-05
                                                                                                                                                                                                                                                                                                                                                                                                                                       FILE REFERENCE: 807A
CURRENT APPLICATION NUMBER: US/10/243,552
CURRENT FILING DATE: 2002-09-12
PRIOR APPLICATION NUMBER: US 60/322,511
PRIOR FILING DATE: 2001-09-13
PRIOR APPLICATION NUMBER: PCT/US00/35017
PRIOR APPLICATION NUMBER: DCT/US00/35017
PRIOR FILING DATE: 2000-12-22
PRIOR APPLICATION NUMBER: US 09/488,725
PRIOR FILING DATE: 2000-01-21
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Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 998
SOFTWARE: pt_FL_genes Version 5.0
SEQ ID NO 596
LENGTH: 167
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SOFTWARE: WordPerfect 8.0 for Windows
SEQ ID NO 1
                                                                                                                            PRIOR APPLICATION NUMBER: US 09/496,914
PRIOR FILING DATE: 2000-02-03
PRIOR APPLICATION NUMBER: US 09/560,875
PRIOR PILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: PCT/US01/04927
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Best Local Similarity
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Publication No. US20020160003A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Tang, Y. Tom
APPLICANT: Yang, Yongho
APPLICANT: Wang, Zhiwe:
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                                                                                                               PRIOR FILING DATE: 2001-02-26
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APPLICANT: Ma, Yunqing
TITLE OF INVENTION: Novel Nucleic Acids and
TITLE OF INVENTION: Polypeptides
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APPLICANT: Hicklin, Daniel J.
APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Matibody Antagonists of VB-Cadherin Without Adverse Effects on
TITLE OF INVENTION: Vascular Permeability
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CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
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ORGANISM: Artificial Sequence
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Wang, Zhiwei
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Pred. No. 0.00012;
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                                                                                See File Wrapper or PALM
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ORGANISM: Homo

sapiens

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US-10-243-552-596
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US-09-978-295A-264
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APPLICANT:
APPLICANT:
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                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2630P1C11
CURRENT PELICATION NUMBER: US/09/978,295A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: 09/918585
PRIOR APPLICATION NUMBER: 09/918585
PRIOR FILING DATE: 2001-07-30
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-11-03
PRIOR PILING DATE: 1997-11-03
PRIOR PILING DATE: 1997-11-03
PRIOR PILING DATE: 1997-11-13
PRIOR APPLICATION NUMBER: 60/065311
PRIOR PILING DATE: 1997-11-13
PRIOR PILING DATE: 1997-11-13
PRIOR PILING DATE: 1997-11-13
PRIOR PILING DATE: 1997-11-13
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APPLICANT:
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PRIOR APPLICATION NUMBER: 60/077450
PRIOR FILING DATE: 1998-03-10
PRIOR APPLICATION NUMBER: 60/077632
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 OR AFFLACE...

OR FILING DATE: 1998-03-13

COR FILING DATE: 1998-03-13

IOR APPLICATION NUMBER: 60/078886

IOR APPLICATION NUMBER: 60/078886

IOR APPLICATION NUMBER: 60/078896
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                                                                                                                  FILING DATE: 1998-03-11
APPLICATION NUMBER: 60/077641
FILING DATE: 1998-03-11
APPLICATION NUMBER: 60/077649
FILING DATE: 1998-03-11
FILING DATE: 1998-03-11
FILING DATE: APPLICATION
                                                                                                     APPLICATION NUMBER: 60/077791
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Grimaldi, J. Christopher
Gurney, Austin L.
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Baker Kevin P.
Botstein, David
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Shelton, David L.
Stewart, Timothy A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Paoni,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Nicholas F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Daniel
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f, Ellen
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Pred. No.
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         FILING DATE: 1998-04-22
APPLICATION NUMBER: 60/082797
FILING DATE: 1998-04-22
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OR APPLICATION NUMBER: 60/080107
OR FILING DATE: 1998-03-31
OR APPLICATION NUMBER: 60/080165
OR APPLICATION NUMBER: 60/080194
OR APPLICATION NUMBER: 60/080327
OR FILING DATE: 1998-04-01 OR FILING DATE: 1998-04-21
R APPLICATION NUMBER: 60/082704
OR FILING DATE: 1998-04-22
OR APPLICATION NUMBER: 60/082804
OR FILING DATE: 1998-04-22
OR APPLICATION NUMBER: 60/082700
OR APPLICATION NUMBER: 60/082700 APPLICATION NUMBER: 60/079294 FILING DATE: 1998-03-30 APPLICATION NUMBER: 60/079923 FILING DATE: 1998-03-30 FILING DATE: 1998-03-26 APPLICATION NUMBER: 60/079664 APPLICATION NUMBER: 60/079656 APPLICATION NUMBER: 60/080328
FILING DATE: 1998-04-01
APPLICATION NUMBER: 60/080333
FILING DATE: 1998-04-01 FILING DATE: 1998-03-27 APPLICATION NUMBER: 60/079920 FILING DATE: 1998-03-27 APPLICATION NUMBER: 60/079786 APPLICATION NUMBER: 60/079728 APPLICATION NUMBER: 60/079689 APPLICATION NUMBER: 60/080334 FILING DATE: 1998-04-01 APPLICATION NUMBER: 60/081070 APPLICATION NUMBER: 60/080105 FILING DATE: 1998-03-31 APPLICATION NUMBER: 60/079663 APPLICATION NUMBER: 60/081838 FILING DATE: 1998-04-15 APPLICATION NUMBER: 60/082568 FILING DATE: 1998-04-21 APPLICATION NUMBER: 60/082569 FILING DATE: 1998-04-09
APPLICATION NUMBER: 60/081955
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081817
FILING DATE: 1998-04-15 FILING DATE: 1998-04-08 APPLICATION NUMBER: 60/ FILING DATE: 1998-04-08 FILING DATE: 1998-04-15 APPLICATION NUMBER: 60/081952 FILING DATE: 1998-04-15 APPLICATION NUMBER: 60/081203 FILING DATE: 1998-04-09 APPLICATION NUMBER: 60/081195 FILING DATE: 1998-04-08 APPLICATION NUMBER: 60/081049 APPLICATION NUMBER: 60/081819 60/078939 60/081071 60/081229

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NUMBER: 60/083336

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60/082796

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Matches
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Best Local
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APPLICATION NUMBER: 60/085704
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APPLICATION NUMBER: 60/085697
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APPLICATION NUMBER: 60/084627
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APPLICATION NUMBER: 60/084598
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APPLICATION NUMBER: 60/084640
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FILING DATE: 1998-04-29
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2 WIWNQMHIDEEKN
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                                                                                    NUMBER: 60/085697
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                      Score 52; DB Pred. No. 31; 2; Mismatches
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TITLE OF INVENTION: Secreted and Transmembra
FILE REFERENCE: P2630P1C27
CURRENT APPLICATION UNUBER: US/09/978,697
FRIOR FILING DATE: 2001-10-16
PRIOR APPLICATION NUMBER: 00/062250
PRIOR FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: 60/062250
PRIOR PELICATION NUMBER: 60/064249
PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-03
PRIOR FILING DATE: 1997-11-03
PRIOR FILING DATE: 1997-11-13
PRIOR PELICATION NUMBER: 60/077450
PRIOR APPLICATION NUMBER: 60/077450
PRIOR APPLICATION NUMBER: 60/07763
PRIOR FILING DATE: 1998-03-10
PRIOR PELICATION NUMBER: 60/07764
PRIOR FILING DATE: 1998-03-11
PRIOR PELICATION NUMBER: 60/07764
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PRIOR PELLING DATE: 1998-03-11
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PRIOR APPLICATION NUMBER: 60/078886
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PRIOR APPLICATION NUMBER: 60/078939
PRIOR PELLING DATE: 1998-03-25
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US20020169284A1
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Shelton,
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Wood, William
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Tumas, Daniel
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Gerritsen, Mary E
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Botstein, David
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APPLICATION NUMBER: 60/082804
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PRIOR APPLICATION NUMBER: 60/078936 PRIOR FILING DATE: 1998-03-20 PRIOR FILING DATE: 1998-03-20 PRIOR APPLICATION NUMBER: 60/078930 PRIOR APPLICATION NUMBER: 60/078939 PRIOR FILING DATE: 1998-03-20 PRIOR PILING DATE: 1998-03-25 PRIOR PILING DATE: 1998-03-25 PRIOR PILING DATE: 1998-03-26 PRIOR APPLICATION NUMBER: 60/079664 PRIOR APPLICATION NUMBER: 60/079664 PRIOR APPLICATION NUMBER: 60/079669 PRIOR APPLICATION NUMBER: 60/079669 PRIOR APPLICATION NUMBER: 60/079669 PRIOR PILING DATE: 1998-03-27 PRIOR APPLICATION NUMBER: 60/079669 PRIOR PILING DATE: 1998-03-27 PRIOR APPLICATION NUMBER: 60/079669 PRIOR PILING DATE: 1998-03-27 PRIOR APPLICATION NUMBER: 60/079663	OF IN OF IN OF IN REFERE REFERE APPLI APPLI FILIN FILIN FILI	Patent No. US20020177553A1 GENERAL INFORMATION: APPLICANT: Ashkenazi, Avi APPLICANT: Baker Kewin P. APPLICANT: Baker Kewin P. APPLICANT: Botstein, David APPLICANT: Botstein, David APPLICANT: Botstein, Dan APPLICANT: Eaton, Dan APPLICANT: Feirara, Napoleon APPLICANT: Filvaroff, Ellen APPLICANT: Gao, Wei-Qiang APPLICANT: Gerber, Hanspeter APPLICANT: Geritsen, Mary E. APPLICANT: Goddard, Audrey APPLICANT: Goddard, Audrey APPLICANT: Goddard, Audrey APPLICANT: Grimaldi, J. Christopher APPLICANT: Majvin, Ivar J. APPLICANT: Kijavin, Ivar J. APPLICANT: Napier, Mary A. APPLICANT: Napier, Mary A. APPLICANT: Pani, James; APPLICANT: Pani, James; APPLICANT: Roy, Margaret Ann APPLICANT: Stewart, Timothy A. APPLICANT: Stewart, Timothy A. APPLICANT: Williams, P. Mickey APPLICANT: Williams, P. Mickey
PRIOR FILING DATE: 1998-04-22 PRIOR APPLICATION NUMBER: 60/082796 PRIOR APPLICATION NUMBER: 60/083336 PRIOR FILING DATE: 1998-04-27 PRIOR APPLICATION NUMBER: 60/083336 PRIOR FILING DATE: 1998-04-28 PRIOR FILING DATE: 1998-04-28 PRIOR APPLICATION NUMBER: 60/083392 PRIOR APPLICATION NUMBER: 60/083495 PRIOR APPLICATION NUMBER: 60/083495 PRIOR APPLICATION NUMBER: 60/083496 PRIOR APPLICATION NUMBER: 60/083496 PRIOR FILING DATE: 1998-04-29 PRIOR FILING DATE: 1998-04-29 PRIOR APPLICATION NUMBER: 60/083496 PRIOR FILING DATE: 1998-04-29 PRIOR APPLICATION NUMBER: 60/083499 PRIOR APPLICATION NUMBER: 60/083499 PRIOR APPLICATION NUMBER: 60/083499 PRIOR APPLICATION NUMBER: 60/083499 PRIOR FILING DATE: 1998-04-29	PRIOR FILING DATE: 1998-04-08 PRIOR APPLICATION NUMBER: 60/081071 PRIOR APPLICATION NUMBER: 60/081195 PRIOR FILING DATE: 1998-04-08 PRIOR FILING DATE: 1998-04-08 PRIOR FILING DATE: 1998-04-09 PRIOR APPLICATION NUMBER: 60/081203 PRIOR APPLICATION NUMBER: 60/081229 PRIOR APPLICATION NUMBER: 60/081955 PRIOR APPLICATION NUMBER: 60/081955 PRIOR APPLICATION NUMBER: 60/081817 PRIOR APPLICATION NUMBER: 60/081817 PRIOR APPLICATION NUMBER: 60/081819 PRIOR FILING DATE: 1998-04-15 PRIOR APPLICATION NUMBER: 60/081952 PRIOR APPLICATION NUMBER: 60/081952 PRIOR APPLICATION NUMBER: 60/081938 PRIOR APPLICATION NUMBER: 60/082569 PRIOR APPLICATION NUMBER: 60/082569 PRIOR APPLICATION NUMBER: 60/082569 PRIOR PILING DATE: 1998-04-21 PRIOR APPLICATION NUMBER: 60/082569 PRIOR PILING DATE: 1998-04-22 PRIOR PILING DATE: 1998-04-22 PRIOR APPLICATION NUMBER: 60/082704 PRIOR APPLICATION NUMBER: 60/082804 PRIOR FILING DATE: 1998-04-22 PRIOR APPLICATION NUMBER: 60/082704 PRIOR APPLICATION NUMBER: 60/082704 PRIOR APPLICATION NUMBER: 60/082804 PRIOR FILING DATE: 1998-04-22 PRIOR APPLICATION NUMBER: 60/082700	PRIOR FILING DATE: 1998-03-27 PRIOR APPLICATION NUMBER: 60/079728 PRIOR APPLICATION NUMBER: 60/079786 PRIOR FILING DATE: 1998-03-27 PRIOR APPLICATION NUMBER: 60/079786 PRIOR FILING DATE: 1998-03-30 PRIOR APPLICATION NUMBER: 60/079923 PRIOR APPLICATION NUMBER: 60/080105 PRIOR FILING DATE: 1998-03-31 PRIOR APPLICATION NUMBER: 60/080107 PRIOR FILING DATE: 1998-03-31 PRIOR APPLICATION NUMBER: 60/080107 PRIOR FILING DATE: 1998-03-31 PRIOR APPLICATION NUMBER: 60/080194 PRIOR APPLICATION NUMBER: 60/080327 PRIOR APPLICATION NUMBER: 60/080327 PRIOR APPLICATION NUMBER: 60/080328 PRIOR APPLICATION NUMBER: 60/080328 PRIOR APPLICATION NUMBER: 60/080328 PRIOR APPLICATION NUMBER: 60/080333 PRIOR APPLICATION NUMBER: 60/080334 PRIOR APPLICATION NUMBER: 60/080334

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CURRENT FILING DATE: 2001-10-24
PRIOR APPLICATION NUMBER: 09/918585
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OR APPLICATION NUMBER: 60/062250
OR FILING DATE: 1997-10-17
OR APPLICATION NUMBER: 60/064249
OR FILING DATE: 1997-11-03
OR FILING DATE: 1997-11-13
OR FILING DATE: 1997-11-13
OR APPLICATION NUMBER: 60/065364
OR FILING DATE: 1997-11-21
OR APPLICATION NUMBER: 60/077450
OR FILING DATE: 1998-03-10
OR APPLICATION NUMBER: 60/077632
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OR APPLICATION NUMBER: 60/077649
OR APPLICATION NUMBER: 60/077649
OR PILING DATE: 1998-03-12
OR APPLICATION NUMBER: 60/07791
OR APPLICATION NUMBER: 60/078004
OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/078936
OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/078910
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OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/078939
OR FILING DATE: 1998-03-20
OR APPLICATION NUMBER: 60/079294
OR APPLICATION NUMBER: 60/079294
OR FILING DATE: 1998-03-25
OR APPLICATION NUMBER: 60/079294
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OR APPLICATION NUMBER: 60/079664

OR FILING DATE: 1998-03-27

OR APPLICATION NUMBER: 60/079689

OR FILING DATE: 1998-03-27

OR APPLICATION NUMBER: 60/079663

OR APPLICATION NUMBER: 60/079728

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FILING DATE: 1998-03-27
APPLICATION NUMBER: 60/
FILING DATE: 1998-03-30
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Hillan, Kenneth J
Kljavin, Ivar J.
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Wood, William
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Shelton, David L.
Stewart, Timothy A.
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Grimaldi,
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J. Christopher
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PRIOR PRIOR

APPLICATION NUMBER: FILING DATE: 1998-0

1998-05-

APPLICATION NUMBER: 60 FILING DATE: 1998-05-1

FILING DATE: 1998-05-15

FILING DATE: 1998-05 APPLICATION NUMBER:

1998-05-

RESULT 14 US-09-999-832A-264

GENERAL INFORMATION:
APPLICANT: Ashkenaz
APPLICANT: Baker K Sequence 264, Appublication No.

Ashkenazi, Avi Baker Kevin P.

APPLICANT:
APPLICANT:

Botstein, David Desnoyers, Luc Eaton, Dan

APPLICANT:

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Matches Query Match Best Local

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OR FILING DATE: 1998-04-29

OR APPLICATION NUMBER: 60/083545

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OR FILING DATE: 1998-04-29

OR APPLICATION NUMBER: 60/083558

OR FILING DATE: 1998-04-29

OR APPLICATION NUMBER: 60/083559

OR APPLICATION NUMBER: 60/083559
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OR FILING DATE: 1998-04-23

DR APPLICATION NUMBER: 60/08336

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DR APPLICATION NUMBER: 60/083322
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FILING DATE: 1998-04-29
APPLICATION NUMBER: 60/083495
FILING DATE: 1998-04-29
APPLICATION NUMBER: 60/083496
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APPLICATION NUMBER: 60/083499
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APPLICATION NUMBER: 60/082797
FILING DATE: 1998-04-22
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FILING DATE: 1998-04-22
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FILING DATE: 1998-04-22
APPLICATION NUMBER: 60/082700
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APPLICATION NUMBER: 60/081195
FILING DATE: 1998-04-08
APPLICATION NUMBER: 60/081203
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APPLICATION NUMBER:
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FILING DATE: 1998-04-09
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FILING DATE: 1998-04-08
APPLICATION NUMBER: 60/081071
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FILING DATE: 1998-04-21
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APPLICATION NUMBER: 60/081952
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FILING DATE: 1998-04-01
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FILING DATE: 1998-03-31
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GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi
APPLICANT: Baker Kevin P.
APPLICANT: Botstein, David
APPLICANT: Desnoyers, Luc
APPLICANT: Eaton, Dan
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US-09-978-189-264
; Sequence 264, Application US/09978189
; Publication No. US20030004102A1
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PRIOR FILING DATE: 1998-05-06
PRIOR APPLICATION NUMBER: 60/08441
PRIOR FILING DATE: 1998-05-06
PRIOR APPLICATION NUMBER: 60/084639
PRIOR APPLICATION NUMBER: 60/084639
PRIOR FILING DATE: 1998-05-07
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FILING DATE: 1998-04-29
APPLICATION NUMBER: 60/083742
FILING DATE: 1998-04-30
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Gerber, Hanspeter
Gerritsen, Mary E
Goddard, Audrey
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Gao, Wei-Qiang
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Filvaroff, Ellen
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CURRENT APPLICATION NUMBER: US/09/978,189
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: 09/918585
PRIOR FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/064249
PRIOR APPLICATION NUMBER: 60/064249
PRIOR FILING DATE: 1997-11-03
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TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2630P1C7
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RESULT 2 US-09-839-542B-6 ; Sequence 6, Application US/09839542B ; Petent No. 6569996 ; GENERAL INFORMATION: APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew APPLICANT: Gour, Barbara J. TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS FILE REFERENCE: 100086.407D1 ; CURRENT APPLICATION NUMBER: US/09/839,542B ; CURRENT FILING DATE: 2001-04-20 ; NUMBER OF SEQ ID NOS: 4052 ; SOFTWARE: Patentin Ver. 2.0 ; SEQ ID NO 6 ; LENGTH: 108 ; TYPE: PAT ; ORGANISM: Homo sapiens	Query Match Best Local Similarity 100.0%; Pred. No. 4.4e-06; Matches 14; Conservative 0; Mismatches 0; Indels Qy 1 DWIWNQWHIDEEKN 14	RESULT 1 US-09-187-859-6 US-09-187-859-6 Sequence 6, Application US/09187859A Patent No. 6358920 GENERAL INFORMATION: APPLICANT: Blaschuk, Orest W. APPLICANT: GOUR, BATBARA J. TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS PILE REFERENCE: 100086.407C1 CURRENT APPLICATION UNMBER: US/09/187,859A CURRENT FILING DATE: 1998-11-06 NUMBER OF SEQ ID NOS: 4052 SOFTWARE: Patentin Ver. 2.0 SEQ ID NO 6 LENGTH: 108 TYPE: PRT ORGANISM: Homo sapiens US-09-187-859-6	ALIGNMENTS	28 45 48.9 106 4 US-09-264-516A-3 29 45 48.9 106 4 US-09-234-395-4 30 45 48.9 106 4 US-09-234-395-5 31 45 48.9 106 4 US-09-305-928-4 48.9 106 4 US-09-305-928-5 33 45 48.9 110 4 US-09-187-859-2 34 45 48.9 110 4 US-09-187-859-2 35 45 48.9 110 4 US-09-187-859-2 36 45 48.9 110 4 US-09-839-5428-4 37 45 48.9 110 4 US-09-839-5428-2 38 45 48.9 110 4 US-09-839-5428-2 39 45 48.9 110 4 US-09-535-852-2 39 45 48.9 110 4 US-09-535-852-2 39 45 48.9 110 4 US-09-338-349-1 40 45 48.9 9615 2 US-08-738-349-1 41 45 48.9 796 1 US-08-138-28-58 42 48.9 796 1 US-08-332-638-58 43 48.9 796 1 US-08-332-638-58 44 48.9 796 1 US-08-332-638-58 45 48.9 796 2 US-08-738-349-2
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Patent No. 6638911
GENERAL INFORMATION:
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SOFTWARE: FastSEQ for Windows Version 4.0
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APPLICANT: Symonds, James M.
APPLICANT: Symonds, James M.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C6
CURRENT APPLICATION NUMBER: US/09/535,852
CURRENT APPLICATION NUMBER: US/09/535,852
CURRENT FILLING DATE: 2001-05-21
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APPLICANT: Suzuki
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ORGANISM: Homo
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                                                   APPLICATION NUMBER: US 08/049,460 FILLING DATE: 19 APR 1993 PRIOR APPLICATION NUMBER: US 07/872,643 FILING DATE: 17 APR 1992
                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/188,228
                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Suzuki, Shintaro
TITLE OF INVENTION: CADHERIN
APPLICALLY
FILING DATE: 17 APR 1972
ATTORNEY/ACENT INFORMATION:
NAME: No. 5597725and, Greta E.
NAME: No. 5197725and, Greta E.
                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local Similarity
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                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                              COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                               Illinois
                                                                                                                                                                                                                                                                                                                                                             6300 Sears Tower, 233 S. Wacker Drive
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                                                                                                                                                                                                                                                                                                                                                                                                                              CADHERIN MATERIALS AND METHODS 62
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hes 0;
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hes 0;
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                                                                                                                      MOLECULE TYPE:
US-08-332-643-44
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Best Local
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                 Matches
                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                       TELEFAX: (312) 984-974
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 780 amino acic
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: LEM PC compatible
COMPUTER: LEM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: Patentin Release #1.0, Version #1.25 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                  ATTORNEY/AGENT INFORMATION:
NAME: NO. 5639634and, Greta
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27
                                                                                                                                                                                                                                                                                                                                                                                  PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                     FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIFICATION:
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                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                             TYPE:
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Pred. No.
                                                                                 Score 87; DB 1; L; Pred. No. 3.8e-05;
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Length 780

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DWIWNQMHIDEEKN

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US-08-332-638-50

Sequence 50, Application US/08332638 Patent No. 5646250

GENERAL INFORMATION:

APPLICANT:

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US-09-187-859-13
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                                                                                                                                                                                                         Sequence 13, Application US/09187859A Patent No. 6358920
SEQ ID NO 13
                                                                                                                                                                                         GENERAL INFORMATION:
    APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
APPLICANT: Gour, Barbara J.
IIILE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
IIILE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT FAPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                            Matches
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INFORMATION FOR SEQ ID NO:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/332,638
FILING DATE: 01-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE CHARACTERISTICS:
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NAME: NO. 5646250 and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31340
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/872,643
FILLING DATE: 17 APR 1992
APPLICATION NUMBER: US/08/049,460
FILLING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE:
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CITY: Chicago
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Sequence 13, Application US/09535852

Patent No. 6638911

GENERAL INFORMATION:

APPLICANT: Blachuk, Orest W.
APPLICANT: Symonds, James M.
APPLICANT: Symonds, James M.
APPLICANT: Gour, Barbara J.

TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086, 407C6
CURRENT APPLICATION NUMBER: US/09/535,852
CURRENT FILING DATE: 2001-05-21
NUMBER OF SEQ ID NOS: 2009
SOFTMARE: FastSEQ for Windows Version 4.0
                                                                                       ; SEQ ID NO 13
; LENGTH: 110
; TYPE: PRT
; ORGANISM: Homo s
US-09-535-852-13
               Query Match
Best Local Similarity
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Best Local Similarity
""" | 7; Conserve
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; ORGANISM: Homo sapiens
US-09-187-859-13
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SEQ ID NO 13
LENGTH: 110
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Patent No. 6569996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Blaschuk, Orest W. APPLICANT: Symonds, James Matthew APPLICANT: Gour, Barbara J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
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Pred. No. 2
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Pred. No. 2.
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Pred. No. 2.2;
                          Mismatches
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                                         DB 4;
2.2;
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                        2;
                                                      Length 110;
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                          Indels
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RESULT 10
US-08-188-228-44
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US-08-332-638-44
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GENERAL INFORMATION:
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                                                                                                                                                              Patent No. 5646250
GENERAL INFORMATION:
APPLICANT: Suzuki
                                                                                                                                                                                               Sequence 44, Application US/08332638 Patent No. 5646250
                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CLASSIFICATION: 435
PRICR APPLICATION DATA:
APPLICATION NUMBER: US 08/049,460
FILING DATE: 19 APR 1993
PRICR APPLICATION DATA:
APPLICATION NUMBER: US 07/872,643
FILING DATE: 17 APR 1992
FILING DATE: 17 APR 1992
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5597725and, Greta E.
REGISTRATION NUMBER: 35,302
REGERENCE/DOCKET NUMBER: 31340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentln Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Suzuki, Shintaro TITLE OF INVENTION: CADHERII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                 MOLECULE TYPE: protein
                                                                                                              NUMBER OF SEQUENCES: 6
                                                                                                                                               APPLICANT: Suzuki, Shintaro
TITLE OF INVENTION: CADHERIN MATERIALS AND METHODS
            CITY: Chicago
STATE: Illinois
COUNTRY: USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STATE:
                                                                                                                                                                                                                                                                                                                                                       53.3%;
Local Similarity 63.6%;
les 7; Conservation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: amino acid
                                                                 STREET:
                                                                               ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ENGTH:
                                                                                                  ADDRESSEE:
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o. 5597725
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60606
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  532 amino acids
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                                                              6300 Sears Tower,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (312) 474-0448
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                                                                                               Marshall, O'Toole, Gerstein, Murray
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                                                                   233 S. Wacker Drive
                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.
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RESULT 12
US-08-188-228-54
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Patent No. 59
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GENERAL INFORMATION:
PRIOR APPLICATION DATA:
APPLICATION UNMEER: US 08/049,46
FILING DATE: 19 APR 1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/872,64
FILING DATE: 17 APR 1992
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5597725and, Greta E.
REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 474-6300
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Suzuki, Shintaro TITLE OF INVENTION: CADHERII
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                                                                                                                                                                                                      COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Re-Lease #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM: MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: NO. 5646250and, Greta E. REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31340
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 07/872,643 FILING DATE: 17 APR 1992 APPLICATION NUMBER: US/08/049,460
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                                                                                                                                                                                                                                                                                                                                            STREET: 6300 SCITY: Chicago
STATE: Illino:
                                                                                                                                                                      APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                        COUNTRY:
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                                                                                                                                                       CLASSIFICATION: 435
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5597725
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                                                                      US 07/872,643
                                                                                                                       US 08/049,460
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US-08-332-643-48
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                                       Matches
                                                                  Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No. 5639634
GENERAL INFORMATION:
                                                                                                                                                          TELEFAX: (312) 984-974
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
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                                                                                                                                                                                                           NAME: No. 5639634and, Greta REGISTRATION NUMBER: 35,302 REFERENCE/DOCKET NUMBER: 27. TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 346-5750
                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC Compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: 435
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET: SU.
STREET: SU.
CITY: Chicago
CITY: Illinois
TSA
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TITLE OF INVENTION: CADHERIN MATERIALS AND METHODS
NUMBER OF SEQUENCES: 56
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                             TELEPHONE: (312) (312)
                                       Local Similarity hes 7; Conserv
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
                                                                                                                      LENGTH: 793 amino TYPE: amino acid TOPOLOGY: linear
                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: FILING DATE:
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TELEFAX: 25-3856
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                                       Conservative
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                                 Score 49; DB Pred. No. 19; 2; Mismatches
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Pred. No.
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                                                            DB 1;
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                                   2;
                                                           Length 793;
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RESULT 15
US-08-188-228-42
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Patent No. 5597725
GENERAL INFORMATION:
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Matches
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Patent No. 564625
                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SOFTWARE: PatentIn Rele
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US//
FILING DATE: 01-NOV-199-
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
STREET: Chicago
CITY: Chicago
Illinois
                                                                                    TITLE OF INVENTION: CAN NUMBER OF SEQUENCES: 6. CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                         TYPE: amino acids
TOPOLOGY: line
WOLECHT P
                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 0
FILING DATE: 17 APR 1992
APPLICATION NUMBER: US/0
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
NAME: No. 5646250and, Gr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Suzuki, S
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STREET: 65.
CTTY: Chicago
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (312) 474-0448
                                                           ADDRESSEE:
ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: No. 5646250and, Gr
REGISTRATION NUMBER: 35,
REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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                                          E: Borun
6300 Sears Tower,
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                                                                                                                               Suzuki, Shintaro
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                                                                   Marshall, O'Toole, Gerstein, Murray
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CADHERIN MATERIALS AND METHODS
                                                                                                                                                                                                                                                                                                                53.3%;
                                                                                                                CADHERIN MATERIALS AND METHODS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Release #1.0, Version #1.25
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Pred. No. 19;
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COMPUTER READABLE FORM:

MEDIUM TYRE: FLORPY disk
COMPUTER: IBM PC compatible
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Title:
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1: sp_archea:*
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12: sp_virus:*
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92
sp_organelle:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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Q86TS8 Q81K72 Q8W5G3	Q88HL3 Q9N2R2 Q87GE0 Q87GE0 Q9VI68 Q8RYF1	Q8WNW5 Q8AYD0 Q01321 Q8C9W7 Q8C3Y5 Q8C3449 Q8C375 Q8CK44 Q9L3G9	SUMMARIES
Q86ts8 homo sapien Q8ik72 plasmodium Q8w5g3 oryza sativ	Q88h13 pseudomonas Q9n2r2 strongyloce Q87ge0 vibrio para Q9vi68 drosophila Q8rvf1 avena stric	Q8wnw5 sus scrofa Q8ayd0 gallus gall Q8ayd0 galsus gall Q8121 caenorhabdi Q8c9n7 mus musculu Q8c449 mus musculu Q8c375 mus musculu Q8c376 mus musculu Q8c376 mus musculu	Description

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ALIGNMENTS

EMBLrel. 20, Created) EMBLrel. 20, Last sequence update) EMBLrel. 20, Last sequence update) EMBLrel. 25, Last annotation update) EMBLrel. 25, Last annotation update) 3) 3) 3) 120a; Chordata; Craniata; Vertebrata; ria; Cetartiodactyla; Suina; Suidae; ria; Conno K., Nishimura J., Kanaide H.; ria; con the endothelial cells."; 2000) to the EMBL/GenBank/DDBJ databa; ria; ria; con the endothelial cells."; ria; con the endothelial cells. "; ria; con the endothelial cells."; ria; con the endothelial cells in porcine on the endothelial cells in porcine on the endothelial cells in porcine on the endothelia; ria; cells and ria; ria; ria; ria; ria; ria; ria; ria;	Bioc GO; GO;		RP SEQUENCE FROM N.A. RA Hirano M., Hirano K. RA Hirano m., Hirano K. RT "Transcriptional up- RT growth arrest in the RI Submitted (JUL-2000) RN [2]		\$0.00 \$0.00	RESULT 1 Q8WNW5 ID Q8WNW5
MMBLrel. 20, Created) MMBLrel. 20, Last sequence update) MMBLrel. 20, Last sequence update) MMBLrel. 25, Last annotation update) MMBLrel. 25, Last annotation update) coa; Chordata; Craniata; Vertebrata; Enia; Cetartiodactyla; Suina; Suidae; Siia; Cetartion of p27Kipl during cont. the endothelial cells.", cool) to the EMBL/GenBank/DDBJ databas; A.	them. Biophys. Res. Commun. 254:490-496(FUNCTION: CADHERINS ARE CALCIUM DEPENDE THEY PREFERENITALLY INTERACT WITH THEMS MANNER IN CONNECTING CELLS; CADHERINS M SORTING OF HETEROGRAEOUS CELL TYPES (BY SUBCELLULAR LOCATION: TYPE I MEMBRANE P 1, AB046120; BABB2983.1; - 2, AB046120; C:membrane; IEA. GO:0005194; F:cell adhesion molecule ac GO:0007155; P:cell adhesion; IEA.	OM N.A. 19339; PubMed=99188 Niiro N., Hirano K., subcellular locali	OM N.A. Hirano K., Nishimura ional up-regulation st in the endothelia JUL-2000) to the EMM	j. 0 .	(TrEMBLrel. 20, (TrEMBLrel. 20, (TrEMBLrel. 25,	
	254:490-496(1999). COIUM DEPENDENT CELL ADHESION PROTE T WITH THEMSELVES IN A HOMOPHILIC CADHERINS MAY THUS CONTRIBUTE TO ELL TYPES (BY SIMILARITY). I MEMBRANE PROTEIN (BY SIMILARITY). I MENDENGLY BA. I IEA. I IEA.		J., Kanaide H.; of p27Kip1 during contact-induced al cells."; 3L/GenBank/DDBJ databases.	raniata; Vertebrata; Euteleostomi; ctyla; Suina; Suidae; Sus.		782

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SOFT TRADER READER READ
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Q8AYD0
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Matches 14
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Best Local 9
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Gallus gallus (Chicken).
Eukaryota: Metanon
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PROSITE; PS00268; CADHERIN 2; 6 adhesion; Glycoprotein.
Calcium-binding; Cell adhesion; Glycoprotein.
SEQUENCE 782 AA; 87536 MW; 6EIDI2D017CB1083 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 5.
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Pfam; PF00028; cadherin_C_term; 1.
Pfam; PF01049; Cadherin_C_term; 1.
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SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin C term; 1.
PRINTS; PR00205; CADHERIN.
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Submitted (JUN-2002) to the EMBL/GenBank/DDE

EMBL; AF522067; AAN33002.1; -

GO; GO:0016020; C:membrane; IEA.

GO; GO:0005509; F:calcium ion binding; IEA.

GO; GO:0007156; P:homophilic cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
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                                                                                        001321 PRELIMINARY;
001321; P91858
01-JUL-1997 (TEMBLICAL 04,
01-NOV-1998 (TEMBLICAL 08,
01-OCT-2003 (TEMBLICAL 25,
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InterPro; IPR000233; Cadherin_C_term.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PRO0205; CADHE SMART; SM00112; CA; 5.
                      Caenorhabditis elegans
Eukaryota; Metazoa;
                                                F26H9.1
                                                                    F26H9.1 protein.
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773 AA;
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    Nematoda;
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Pred. No.
                                                                                               Last sequence update)
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Pred. No. 0.
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VASCULAR ENDOTHELIAL CADHERIN

AC59CE11119043F4 CRC64;
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    Chromadorea; Rhabditida; Rhabditoidea;
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Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulson !
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
Watson A. Weinstock L., Wilkinson-Sproat J., Wohldman F.;
"2.2 Mb of contiguous nucleotide sequence from Chromosome III of C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NCBI_TaxID=6239;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Q8C9N7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WormPep; F26H9.1; CE09706.
InterPro; IPR008945; Skp1_Skp2.
SEQUENCE 524 AA; 60462 MW;
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01-MAR-2003
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                                                                                                  60,770 full-length cDNAs.";
Nature 420:563-573(2002).
EMBL, AKO41720; BAC31041.1; -.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion;
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Thymus;
MEDLINE=22354683; PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=10090;
PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 1.
                                                   InterPro; IPR002126; Cadherin. Pfam; PF00028; cadherin; 2.
                                                                                                                                                                                                                                                           the RIKEN Genome Exploration Research Group Phase I & II Team, "Analysis of the mouse transcriptome based on functional annot
                                                                                                                                                                                                                                                                                                                     The FANTOM Consortium,
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7; Conser
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(TrEMBLrel.)
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50.0%;
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25,
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Last annotation update)
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Pred. No. 10;
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                                                                                                                  IEA.
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Q8C449
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Matches 7
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Best Local S
Matches 7
CDH8.

Mus musculus (Mouse).

Eukaryota; Metazoa; C
Mammalia; Eutheria; R
NCBI_TaxID=10090;
[1]
                                                         Q8C375;
Q8C375;
01-MAR-2003
01-MAR-2003
01-OCT-2003
Cadherin 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8C449;
Q8C449;
01-MAR-2003
01-MAR-2003
01-CCT-2003
                                                                                                                                                                                                                                        PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN 2; 5.
SEQUENCE 716 AA; 79145 MW; 976FF5D845F938BD CRC64;
                                                                                                                                                                                                                                                                                                                                  the RIKEN Genome Exploration Research Group Phase I & II 'Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
BMBL; AKO83092; BAC38758.1; -.
MGD; MGI:107494; CdhB.
GO; GO:0016020; C:nembrane; IEA.
GO; GO:00015029; F:calcium ion binding; IEA.
GO; GO:0007155; P:bomophilic cell adhesion; IEA.
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PROSITE;
SEQUENCE
                                                                                                                                                                                                                                                                          InterPro; IPR002126; Cadherin.
InterPro; IPR00223; Cadherin_C_term.
Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin C_term; 1.
PRINTS; PR00205; CADHERIN.
SMART; SM00112; CA; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Hippocampus;
MEDLINE=22354683; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mus musculus
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7; Conserv
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                                                                                                                                                               WVWNQMFVLEE
                                                                                                                                                                                  WIWNQMHIDEE 12
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P850268; CADHERIN_2; 2.
247 AA; 27565 MW; DF7551A97A29289D CRC64;
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                                                                  (TrEMBLrel. 23, 1)
(TrEMBLrel. 23, 1)
(TrEMBLrel. 25, 1)
                                                                                                            PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (TrEMBLrel.
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                  Chordata;
Rodentia;
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Rodentia;
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                                                                                                                                                                                                              53.3%;
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23,
25,
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Last sequence update)
Last annotation update)
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               Craniata; Vertebrata; Sciurognathi; Muridae;
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Pred. No. 6.7;
                                                                                                            PRT;
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                                                                 sequence update)
annotation update)
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                                                                                                          716 AA.
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               Euteleostomi;
; Murinae; Mus.
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RESULT 7
Q8BRK4
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                Query Match
Best Local
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Best Local
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Q8BRK4;
01-MAR-2003
01-MAR-2003
01-OCT-2003
                                                                                                                                                              MEDIINE=22354683; PubMed=1246681;
The FANTOM Consortium,
the RIKEN Genome Exploration Research Group Phase I & II
"Analysis of the mouse transcriptome based on functional
60,770 full-length cDNAs.";
Nature 420:563-573(2002).
EMBL; AKO44046; BAG31751.1; -.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion; IEA.
                                                  PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN 2; 5.
SEQUENCE 754 AA; 83624 MW; 1
                                                                                                                   InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin C term.
Pfam; PF00028; cadherin, 5: -
Pfam; PF01049; Cadherin_C_term; 1.
                                                                                          PRINTS; PR00205; CADHI SMART; SM00112; CA; 5
                                                                                                                                                                                                                                                                                                                                            Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                  STRAIN=C57BL/6J; TISSUE=Cortex;
                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10090;
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MGD; MGI:107434; Cdh8.

GO; GO:0016020; C:membrane; IEA.

GO; GO:0005509; F:calcium ion binding; IEA.

GO; GO:0007156; P:homophilic cell adhesion;
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PROSITE; PS50268; CADHERIN 2;
SEQUENCE 716 AA; 79149 MW;
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Pfam; PF01049; Cadherin C term;
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Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
STRAIN-C57BL/6J; TISSUE-Head;
MEDLINE-23354683; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 5.
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InterPro; IPR000233; Cadherin_C_term.
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  Similarity 63.7; Conservative
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                                                                                                       CADHERIN
             53.3%;
63.6%;
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Last annotation update)
Score 49; DB 11;
Pred. No. 22;
2; Mismatches 2
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Pred. No.
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                                                  149C3C70D3F21568 CRC64;
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                        Length 754;
 Indels
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Best Local
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Q9L3G9;
O1-OCT-2000 (TrEMBLrel.:
01-OCT-2000 (TrEMBLrel.:
01-OCT-2003 (TrEMBLrel.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Members of the amylovora group of Erwinia are cellulolytic possess genes homologous to the type II secretion pathway."; Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AJ276358; CAB89803 1; GO; GO:0008810; F:cellulase activity; IEA. GO; GO:0005975; Picarbohydrate metabolism; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=NCPPB2989;
Saarilahti H.T.;
Submitted (MAR-2000)
Nelson K.E., Weinel C., Paulsen I.T., Dodson R.J., Hilbert H., Martins dos Santos V.A.P., Fouts D.E., Gill S.R., Pop M., Holmes M., Brinkac L., Beanan M., DeBoy R.T., Daugherty S., Kolonay J., Madupu R., Nelson W., White O., Peterson J., Khouri H., Hance I., Chris Lee P., Holtzapple E., Scanlan D., Tran K., Moazzez A., Utterback T., Rizzo M., Lee K., Kosack D., Moestl D., Wedler H., Lauber J., Stjepandic D., Hoheisel J., Straetz M., Heim S., Kiewitz C., Eisen J., Timmis K.N., Duesterhoeft A., Tuemmler B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR002037; Glyco hydro_8.
InterPro; IPR008928; Glyco_trans_6hp.
Pfam; PF01270; Glyco_hydro_8; 1.
PRINTS; PR00735; GLHYDRLASE8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=NCPPB2989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria; Proteobacteria;
Enterobacteriaceae; Erwini
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                                                                                                                                                                                                         01-JUN-2003 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
01-OCT-2003 (TrEMBLrel.
Nickel ABC transporter.
                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Glycosidase; Hydrolase; Signal.
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                                                                                                                                                           Pseudomonadaceae; Pseudomonas.
                                                                                                                                                                       Bacteria; Proteobacteria;
                                                                                                                                                                                 Pseudomonas putida (strain KT2440)
                                                                                                                                                                                                NIKB OR PP3343.
                                                                                                                                                                                                                                                             Q88HL3;
                                                                                                                                                                                                                                                                         Q88HL3
                                                                                                    MEDLINE=22423060; PubMed=12534463;
                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                          NCBI_TaxID=160488;
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333 AA;
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37784 MW;
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Last annotation update)
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Pred. No.
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RESULT 10
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                                                                                                                Pfam; PF00856; SET; 1.

Pfam; PF00096; zf-C2H2; 4.

ProDom; PD000003; Znf_C2H2; 1.

ProDom; PD000003; Znf_C2H2; 1.

SMART; SM00317; SET; 1.

SMART; SM00355; Znf_C2H2; 4.

PROSITE; PS50280; SET; 1.

PROSITE; PS50280; ZINC_FINGER_C2H2_1; 4.

PROSITE; PS50287; ZINC_FINGER_C2H2_2; 4.

Metal-binding; Zinc; Zinc_finger_care; 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Complete genome sequence and comparative analysis of the metabolically versatile Pseudomonas putida KT2440."; Environ. Microbiol. 4:799-808(2002). EMBL; AE016786; AAN68947.1; -
TIGR; PP3343; -
TIGR; CO:0016020; C:membrane; IEA.
GO; GO:0005215; F:transporter activity; IEA.
GO; GO:0005215; P:transport; IEA.
INTERPRO; IPR000515; BPD transp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-2000
01-OCT-2000
01-JUN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Strongylocentrotus purpuratus (Purple sea urchin).
Eukaryota; Metazoa; Echinodermata; Eleutherozoa; Echinozoa;
Echinoidea; Euechinoidea; Echinacea; Echinoida; Strongylocentrotidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fraser C.M.;
                                                                                                                                                                                                                                                            Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: CONTAINS 1 SET DOMAIN.
EMBL; AF102558; AAF30407.1; -.
HSSP; P08048; 7ZNF.
                                                                                                                                                                                                                                                                                                                                                       Kruppel/Krox gene from Stronglyocentrotus Mech. Dev. 60:185-195(1996).
                                                                                                                                                                                                                                                                                                                                                                                Wang W., Wikramanayake A.H., Gonzalez-Rimbau M., Vlahou A., Flytzanis C.N., Klein W.H.; "Very early and transient vegetal-plate expression of SpKrox1,
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Strongylocentrotus. NCBI_TaxID=7668;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kroxl protein.
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                                                                                                       SEQUENCE
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MEDLINE=97177555; PubMed=9025071;
                                                                                                       Metal-binding; Zinc;
SEQUENCE 839 AA;
                                                                                                                                                                                                                             InterPro; IPR001214; SET.
InterPro; IPR007087; Znf_C2H2.
pfam: PF00856; SET; 1.
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WIWIRLEIDNQENK 762
                          WIWNQMHIDEEKNE
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(TrEMBLrel. 15, Last sequence update)
(TrEMBLrel. 24, Last annotation update)
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                                                                                                         95305 MW;
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Pred. No.
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Pred. No.
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RESULT 12

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AC QSVI6

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RA Abmi
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RA Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,

RA Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,

RA Amanatides P.G., Scherer S.E., Richards S., Ashburner M., Henderson S.N.,

RA George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,

RA Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,

RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,

RA Bril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,

RA Belew R.M., Basu A., Baxendale J., Bayraktarogiu L., Beasley E.M.,

RA Belew R.M., Basu A., Berman B.P., Bhandari D., Bolshakov S.,

RA Borkova D., Botchan M.R., Bouck J., Erokstein P., Brottier P.,

RA Borkova D., Botchan M.R., Bouck J., Cadieu E., Center A., Chandra I.,

RA Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,

RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,

RA Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,

RA Posler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,

RA Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
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Matches
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01-MAY-2000
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01-MAY-2000 (TrEMBLrel. 13,
01-JUN-2003 (TrEMBLrel. 24,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Drosophila melanogaster (Fruit fly).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CG14611 protein.
FER1 OR BCDNA:RH30329 OR CG10066 OR CG14611.
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MEDLINE=22508454; PubMed=12620739;

Makino K., Oshima K., Kurokawa K., Yokoyama K., Uda T., Tagomori K.,

Iijima Y., Najima M., Nakano M., Yamashita A., Kubota Y., Kimura S.,

Yasunaga T., Honda T., Shinagawa H., Hattori M., Iida T.;

"Genome sequence of Vibrio parahaemolyticus: a pathogenic mechanism
distinct from that of V. cholerae.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hypothetical protein; Complete proteome. SEQUENCE 1497 AA; 165870 MW; 7EFB228
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EMBL; AP005088; BAC62719.1;
InterPro; IPR000437; Prok lipoprot S.
PROSITE; PS00013; PROKAR LIPOPROTEIN; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Last sequence update)
Last annotation update)
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Pred. No.
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3;
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Q8RYF1
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RA Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA Liuk N., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
RA Liukov G., Mishina N.V., Mobarry C., Morris J., Moshrefi A.,
RA Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Paclab J.M.,
RA Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA Spier E., Spradling A.C., Stapleton M., Skupski M.P., Smith T.,
RA Spier E., Spradling A.C., Stapleton M., Skupski M.P., Smith T.,
RA Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA Gibbs R.A., Myers E.W., Rubin G.M., Venter I., Jahoo Q., Zheng L.,
RA Science 287:2185-2195(2000).
DR EMBL; AE003672, AAF54057.1; -.
                                                                                                     Matches
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Best Local
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Best Local
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"resistance gene analogous in Avena strigosa.";
Submitted (FEB-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AJ437574; CAD126862.1;
GO; GO:0005524; F:ATP binding; IEA.
GO; GO:0006915; P:apoptosis; IEA.
InterPro; IPR002182; NB-ARC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           08RYF1;
01-JUN-2002 (TrEMBLrel. 21,
01-JUN-2002 (TrEMBLrel. 21,
01-OCT-2003 (TrEMBLrel.
                                                                                                                                                                                                           SEQÜENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Stre
Spermatophyta; Magnoliophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8RYF1
                                                                                                                                                                                                                                                                                           Pfam;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=38783;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aveneae;
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62
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                                                                                                                              Similarity
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                                              IWNOMHIDEEKN 14
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143 AA; 16081 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             resistance protein
                                                                                                                                                                                                      176
176 AA;
                                                                                                Conservative
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                                                                                                                                                                                                         20133 MW;
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58.3%;
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yta; Liliopsida; Poales; Poaceae; Pooideae;
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Last annotation update)
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Pred. No. 21;
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Pred. No. 1
                                                                                                                                                                                                   D60982A15C6FE2F6 CRC64;
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                                                                                             Mismatches
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                                                                                                                                               Length 176;
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Zhu X., Smith H.O.,
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RESULT Q86TS8

PRELIMINARY;

241 AA.

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Best Local S
Matches 6
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01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
Human full-length cDNA 5-PRIME end of clone CSODE010YP19 of placenta
of Homo sapiens (Human) (Fragment).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EMBL; BX248750; CAD66557.1; -.

GO; GO:0046821; C:extrachromosomal DNA; IEA.

GO; GO:0016020; C:membrane; IEA.

GO; GO:0005509; F:calcium ion binding; IEA.

GO; GO:0007156; P:homophilic cell adhesion; IEA.

GO; GO:0007156; Cadherin.

Pfam; PF000216; Cadherin.

Pfam; PF00028; cadherin.

Pfam; PF00028; CAPHERIN.

SMART; SM00112; CA; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE-Placenta;
Li W.B., Gruber C., Jessee J., Polayes D.;
"Full-length cDNA libraries and normalization.";
Submitted (FEB-2003) to the EMBL/GenBank/DDBJ da
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9606;
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                          STRAIN=3D7; PubMed=12368864; MRDLINB=22255705; PubMed=12368864; Gardner M.J., Hall N., Fung E., White O., Berriman M., Hyman R.W., Carlton J.M., Pain A., Nelson K.E., Bowman S., Paulsen I.T., James K., Eisen J.A., Rutherford K., Salzberg S.L., Craig A., Kyes S., Chan M.-S., Nene V., Shallom S.J., Suh B., Peterson J., Angiuoli S., Pertea M., Allen J., Selengut J., Haft D., Mather M.W., Vaidya A.B., Petrea M., Allen J., Selengut J., Haft D., Mather M.W., Vaidya A.B., Wartin D.M.A., Fairlamb A.H., Fraunholz M.J., Roos D.S., Ralph S.A., McFadden G.I., Cummings L.M., Subramanian G.M., Mungall C., Venter J.C., Carucci D.J., Hoffman S.L., Newbold C., Davis R.W., Fraser C.M., Barrell B.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PROSITE; PS00232; CADHERIN_1; 1. PROSITE; PS50268; CADHERIN_2; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (FEB-2003)
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                                                                                                                                                                                                                                                                         Hypothetical protein. PF14_0734.
                                                                                                                                                                                                                                                                                                     Q8IK72;

Q1-MAR-2003 (TrEMBLrel. 23,

O1-MAR-2003 (TrEMBLrel. 23,

O1-OCT-2003 (TrEMBLrel. 25,
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                                                                                                                                                                                                                                        Plasmodium falciparum (isolate 3D7).
Bukaryota, Alveolata; Apicomplexa; Haemosporida; Plasmodium.
                                                                                                                                                                                                                                                                                                                                                              Q81K72
                                                                                                                                                                                                 SEQUENCE
                                                                                                                                                                                                                            NCBI_TaxID=36329;
falciparum
    "Genome sequence falciparum.";
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                                                                                                                                                                                                 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            241
241 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                 PRELIMINARY;
                  o<u>t</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              241
26348 MW; 4649831B55424604 CRC64;
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                    human malaria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 45; DB 4
Pred. No. 29;
2; Mismatches
                                                                                                                                                                                                                                                                                                       Last sequence update)
Last annotation update)
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                                                                                                                                                                                                                                                                                                                                     Created)
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                  parasite Plasmodium
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 241;
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                                                        Query Match
Best Local S
Matches 8
                                                                                                                Nature 419:498-511(2002).

EMBL; AE014828; AAN373471; -.

R GG; GO:0005524; F:ATP binding; IEA.

R GG; GO:0004713; F:protein-tyrosine kinase activity; IEA.

R GG; GO:000468; P:protein amino acid phosphorylation; IEA.

R InterPro; IPR000719; Prot kinase.

R InterPro; IPR008266; Tyr Dkinase_AS.

R Pfam; PF00069; pkinase; T.

R PROSITE; PS50011; PROTEIN_KINASE_DOM; 1.

R PROSITE; PS500109; PROTEIN_KINASE_TYR; 1.

W Hypothetical protein.

O SEQUENCE 241 AA; 28845 MW; 03664AF4F322F246 CRC64;
146 WIWNEGHLWDCSDPSKDE
                            2 WIWNOMHI ---- DEEKNE 15
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                                                                          Similarity
                                                            Conservative
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Search completed: July 29, 2004, 11:37:09 Job time : 32 secs

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US-10-040-128-2 92

Scoring table:

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Post-processing: Minimum Match 0%
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AI1678
S47696
H91171
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159372
C84941
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E89962
T29503
I50180
I51638
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T09911
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I48277
I49556
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serine C-palmitoyl
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F;48-593/Domain: extracellular #status predicted <EXT>
F;59-151/Domain: cadherin repeat homology <CR1>
F;154-258/Domain: cadherin repeat homology <CR2>
F;261-372/Domain: cadherin repeat homology <CR3>
F;375-479/Domain: cadherin repeat homology <CR4>
F;479/Domain: cadherin repeat homology <CR5>
F;594-620/Domain: cadherin repeat homology <CR5>
F;594-620/Domain: transmembrane #status predicted <INT:
F;621-784/Domain: intracellular #status predicted <INT:
                                                                                                                                                                                                A;Cross-references: GDB:134230; OMIM:601120
A;Map position: 16q22.1-16q22.1
C;Superfamily: cadherin: cadherin repeat homology
C;Keywords: calcium binding; cell adhesion; dupli
F;1-25/Domain: signal sequence #status predicted
                                                                                                                                                                                                                                                                                                                                   A;Molecule type: protein
A;Residues: 48-60,'X',62,'X',64;108-116,'X',118-123;237-238,'X',240,'X',242-252,'X',254-
A;Residues: 48-60,'X',62,'X',64;108-116,'X',118-123;237-238,'X',240,'X',242-252,'X',254-
A;Rote: sequence: cultured endothelial cells
A;Note: sequence extracted from NCBI backbone (NCBIP:113040, NCBIP:113045, NCBIP:113047,
C;Comment: Cadherins mediate calcium-dependent intercellular adhesion, and are thought t
                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Molecule type: mRNA
A;Molecule type: mRNA
A;Residues: 5-516,'I','518-784 <SUZ>
A;Cross-references: EMBL:X59796; NID:g639976; PIDN:CAA42468.1; PID:g29593
A;Cross-references: EMBL:X59796; NID:g639976; PIDN:CAA42468.1; PID:g29593
C;Cell Biol. 118, 1511-1522, 1992
A;Title: A novel endothelial-specific membrane protein is a marker of cell A;Reference number: A43418, MUID:92394977; PMID:1522121
A;Accession: A43418
                                                                                                                                                             F;26-47/Domain: propeptide #status predicted <PRO>F;48-784/Product: cadherin 5 #status predicted <MAT>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: EMBL:X79981; NID:g599833; PIDN:CAA56306.1; PID:g599834
R;Suzuki, S.; Sano, K.; Tanihara, H.
Cell Regul: 2, 261-270, 1991
A;Title: Diversity of the cadherin family: evidence for eight new cadherins in nervous the R;Reference number: $24305; MUID:91283540; PMID:2059658
A;Accession: $24405
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N/Alternate names: 784 antigen; cadherin, endothelial-specific; VE-cadherin
C;Species: Homo sapiens (man)
C;Date: 30-dun-1993 #sequence revision 13-Sep-1996 #text_change 22-Jun-1999
C;Accession: $49893; $24305; Ā43418
R;Breviario, F.; Caveda, L.; Corada, M.; Martin-Padura, I.; Golay, J.; Introna, M.; Lamp submitted to the EMBL Data Library, June 1994
A,Description: Molecular and functional properties of VE-cadherin (784/cadherin-5) a nov
                                                                                                                                                                                                                                                                                                              A;Gene: GDB:CDH5
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A; Residues: 1-784 < BRE>
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                          <MMT>
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K-cadherin - rat
cadherin-6 - human
cadherin-6B - chic
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A.; Houen,

G.; Ruco

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Result No.

Score

Match

Length

DB

87 49 47.5 45 45 45 45 45 45 45

Minimum DB Maximum DB

seq length: 0 seq length: 2000000000

Database

pir4:*

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F;61,112,157,362,442,523,535/Binding site: carbohydrate (Asn) (covalent) #status predict
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C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jan-2000
C;Accession: D38992
R;Suzuki, S:, Sano, K:, Tanihara, H.
Cell Regul. 2, 261-270, 1991
Cell Regul. 2, 261-270, 1991
A;Title: Diversity of the cadherin family: evidence for eight new cadherins A;Reference number: S24305; MUID:91283540; PMID:2059658
A;Accession: D38992
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A; Accession: T21443
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A;Experimental source: clone F14B4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            submitted to the EMBL Data Library, June 1996
A,Reference number: Z19337
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A; Residues: 1-524 < WI2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             submitted to the EMBL Data Library, November 1996
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                                                                                                                                                                                      A;Status: preliminary; translated A;Molecule type: mRNA A;Residues: 1-793 <SUZ>
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A;Introns: 49/2; 99/1; 136/1; 186/1; 228/3; 287/3; 346/1; 403/1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Experimental source:
                                                     A;Cross-references: GDB:5822911
C;Superfamily: cadherin; cadherin
C;Keywords: calcium binding; cell
F;163-269/Domain: cadherin repeat
                                                                                                                                                                  A;Cross-references: GB:L34060; NID:g506411; PIDN:AAA35628.1; PID:g506412
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Query Match
Best Local
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R;Kunst, F.; Ogasawara, N.; Moszer, I.; Albertini, A.M.; Alloni, G.; Azevedo, V.; Berter C.; Bron, S.; Brouillet, S.; Bruschi, C.V.; Caldwell, B.; Capuano, V.; Carter, N.M.; Cho A.; Ehrlich, S.D.; Emmerson, P.T.; Entian, K.D.; Errington, J.; Fabret, C.; Ferrari, E. Nature 390, 249-256, 1997

A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler A;Authors: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Fuma, S.; Galizzi, A.; Galler Koetter, J.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle Y., M.; Ogawa, K.; Oscha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; Scanlon, Rieger, M.; Rivolta, S.; Kohceter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror A; M.; Mathors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror A; Winters, P.; Wipat, A.; Tamako, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, T.; Winters, P.; Wipat, A.; Yamamoto, K.; Yasumoto, K.; Yata, K.; Yoshida, P.; A; Authors: Yoshikawa, H.; Jamstein, E.; Yoshikawa, H.; Danchin, A.; A; Kipata, K.; Yoshida, P.; Title: The complete genome sequence of the Gram-positive bacterium Bacillus subtilis. A; Reference number: A69580; MUID:98044033; PMID:9344377

A; Maccession: C69673
A; Maccuse preliminary; nucleic acid sequence not shown; translation not shown
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A;Authores: Foulger, D.; Fritz, C.; Fujita, M.; Fujita, Y.; Puma, S.; Galizzi, A.; Gallert iech, J.; Harwood, C.R.; Henaut, A.; Hilbert, H.; Holsappel, S.; Hosono, S.; Hullo, M.F.; iech, J.; Koetter, P.; Koningstein, G.; Krogh, S.; Kumano, M.; Kurita, K.; Lapidus, A.; Lardinois, K., Authors: Lauber, J.; Lazarevic, V, Lee, S.M.; Levine, A.; Liu, H.; Masuda, S.; Maueel, Y., M.; Ogawa, K.; Ogiwara, A.; Oudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle, Y.; M.; Ogawa, K.; Ogiwara, A.; Cudega, B.; Park, S.H.; Parro, V.; Pohl, T.M.; Portetelle, Rieger, M.; Rivolta, C.; Rocha, E.; Roche, B.; Rose, M.; Sadaie, Y.; Sato, T.; A; Authors: Schleich, S.; Schroeter, R.; Scoffone, F.; Sekiguchi, J.; Sekowska, A.; Seror, akeuchi, M.; Tamakoshi, A.; Tanaka, T.; Terpstra, P.; Tognoni, A.; Tosato, V.; Uchiyama, T.; Winters, P.; Wipat, A.; Yamanoto, H.; Yamane, K.; Yamanoto, K.; Yata, K.; Yoshida, K. A; Authors: Yoshikawa, H.F.; Zumstein, E.; Yoshikawa, H.; Danchin, A. A; Tata, K.; Yoshida, K. A; Reference number: A69580; MUID:98044033; PMID:9384377

A; Reference number: A69580; MUID:98044033; PMID:9384377
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C;Date: 10-Sep-1999
C;Accession: D70006
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         penicillin-binding protein pbpX - Bacillus subtilis
C;Species: Bacillus subtilis
C;Date: 05-Dec-1997 #sequence_revision 05-Dec-1997 #text_change 15-Oct-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Status: preliminary; nucleic acid sequence not shown; translation not shown A; Molecule type: DNA
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A;Experimental source: strain 1
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s subtilis
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#sequence_revision 10-Sep-1999 #text_change 21-Jul-2000
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168
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Pred. No. 6.8;
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R;HOffmann, I.; Balling, R.
Dev. Biol. 169, 337-246, 1995
A;Tit.Le: Cloning and expression analysis of a novel mesodermally expressed cadherin.
A;Reference number: 148277; MUID:95269886; PMID:7750649
A;Accession: 148277
                                                                                                                                                                                                                                                                                      C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 21-Jan-2000
C;Accession: I48277.
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A;Map position: 16922.1-16922.1
C;Superfamily: cadherin; cadherin repeat homology
C;Keywords: calcium binding; cell adhesion; dupli:
F;56-159/Domain: cadherin repeat homology CRI2
                                                     A;Gene: cad-11
C;Superfamily: c.
F;56-159/Domain:
                                                                                                                                               A; Molecule type: mRNA
A; Residues: 1-796 < RES>
                                                                                                               C; Genetics:
                                                                                                                     A;Cross-references: EMBL:X77557; NID:g642796; PIDN:CAA54674.1; PID:g666071
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A;Cross-references: GI
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A;Title: Diversity of the cadherin family: evidence for A;Reference number: 824305; MUID:91283540; PMID:2059658
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     C;Species: Homo sapiens (man)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 20-Aug-1999
C;Accession: A38992
R;Suzuki, S; Sano, K.; Tanihara, H.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Cross-references: GB:L34056; NID:g506403; PIDN:AAA35622.1; PID:g506404
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A; Residues: 1-796 < SUZ>
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A;Cross-references: GB:Z99112; GB:AL009126; NID:g2633902; PIDN:CAB13568.1; PID:e1185286;
A;Experimental source: strain 168
C;Generics:
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Query Match
Best Local Similarity
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Best Local
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                                                 cadherin; cadherin repeat homolog.n: cadherin repeat homology <CDH>
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48.9%;
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Score 45;
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A;Molecule type: mRNA
A;Residues: 1-796 <OKA>
A;Residues: 1-796 <OKA>
A;Cross-references: GB:D21253; NID:g994774; PIDN:BAA04797.1; PID:g994775
C;Superfamily: cadherin; cadherin repeat homology
C;Keywords: transmembrane protein
F;56-159/Domain: cadherin repeat homology <CR1>
F;56-288/Domain: cadherin repeat homology <CR2>
F;386-488/Domain: cadherin repeat homology <CR4>
RESULT 10
T09911
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A;Title: Molecular cloning and characterization of OB-cadherin, A;Reference number: A53584; MUID:94216322; PMID:8163513
A;Accession: A53584
                                                                                                                                                                                                                                                                                                                                                                 A, Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C;Species: Mus musculus (house mouse)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 20-Jun-2000
C;Accession: A53584
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F;56-159/Domain: cadherin
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A;Title: Cadherin-11 expressed in association with mesenchymal morphogenesis in the head A;Reference number: 149556; MUID:95269887; PMID:7750650
A;Accession: 149556
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Kimura, Y.; Matsunami,
Dev. Biol. 169, 347-358,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revisio
C;Accession: I49556
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Molecule type: mRNA
A; Residues: 1-796 < RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A53584
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                                                                                                                                                Matches
                                                                                                                                                                                 Query Match
                                                                                                                                                                Best Local Similarity
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                                                                                                                                                              48.9%;
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54.5%;
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C;Accession: T09911
R;Bevan, M.; Zimmermann, W.; Grueneisen, A.; Wambutt, submitted to the Protein Sequence Database, June 1999
A:Reference number: Z16896

R.; Bancroft, I.; Mewes,

H.W.;

Maye

Arabidopsis

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probable serine/threonine-specific protein kinase (EC 2.7.1.-) T22A6.310 - C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 16-Jul-1999 #sequence_revision 16-Jul-1999 #text_change 15-Oct-1999 C;Accession: T09911

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A; Accession: T09911
A; Molecule type: DNA
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C;Accession: F89999

R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimi C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K. Lancet 357, 1225-1240, 2001

A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus. A;Reference number: A89758; MUID:21311952; PMID:11418146

A;Accession: F89999
                                                                                                                                                                                                                                                                                                                                    hypothetical protein [imported] - Staphylococcus aureus (strain N315) C;Species: Staphylococcus aureus C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 22-Oct-2001 C;Accession: E89962 R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa. H.: Kobavashi T.:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Residues: 1-163 <KUR>
A;Cross-references: GB:BA000018; PID:gl3701867; PIDN:BAB43159.1; GSPDB:GN00149
A;Experimental source: strain N315
C;Genetics:
A;Gene: SA1876
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A,Gene: ATSP:T22A6.310
A,Map position: 4
A,Introns: 286/3; 386/2;
C,Keywords: phosphotrans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C;Genetics:
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A;Experimental source: cultivar Columbia; BAC clone T22A6
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                                                                                                                                                                                    R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K. Lancet 357, 1225-1240, 2001
A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus.
A;Reference number: A89758; MUID:21311952; PMID:11418146
A;Recession: E89962
A;Status: preliminary
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C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 22-Oct-2001
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                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-500 < KUR>
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Best Local S
Matches 7
                                                                                                 A;Cross-references: GB:BA000018; PID:g13701565; PIDN:BAB42858.1; GSPDB:GN00149
A;Experimental source: strain N315
                                                              A;Gene:
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  Best Local Similarity
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47.8%;
41.7%;
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Pred. No. 56
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Pred. No.
  Score
Pred.
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  44;
No.
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9.5;
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33;
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                      Length
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Sekimizu,
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      F-cadherin - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1
C;Accession: I51638; S55391
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A;Introns: 16/2; 71/3; 115/3; 289/1; 528/3
C;Superfamily: serine C-palmitoyltransferase chain LCB2; glycine C-acetyltransferase home C;Keywords: acyltransferase; coenzyme A; phosphoprotein; pyridoxal phosphate F;178-531/Domain: glycine C-acetyltransferase homology <GCA>
F;384/Binding site: pyridoxal phosphate (Lys) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Wu, X.; Le, T. submitted to the EMBL Data Library, February 1996 A;Description: The sequence of C. elegans cosmid F43H9
                                                                                                                                                                A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-785 <NAK>
A;Cross-references: GB:D42150; NID:g868000; pIDN:BAA07721.1; PID:g868001
A;Cross-references: GB:D42150; NID:g868000; piDN:BAA07721.1; PID:g868001
C;Superfamily: cadherin; cadherin repeat homology
F;156-262/Domain: cadherin repeat homology <CDH>
                                                                                                                                                                                                                                                                                          R;Nakagawa, S.; Takeichi, M.
Development 121, 1321-1332, 1995
A;Title: Neural crest cell-cell adhesion controlled by sequential
A;Reference number: I50178; MUID:95309115; PMID:7540531
A;Recession: I50180
A;Recession: I50180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A,Cross-references: EMBL:U50307; PIDN:AAA92303.1; CESP:F43H9.
A,Experimental source: strain Bristol N2
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A; Residues: 1-558 < WUX>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jun-2000
C;Accession: T29503
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                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Gallus gallus (chicken)
C;Date: 21-Feb-1997 #sequence_revision 21-Feb-1997 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene: CESP:F43H9.2
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                                                                                 Local Similarity
les 6; Conserv
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                                      WIWNOMHIDEE 12
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WVWNQFFVLEE
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                                                                                      Conservative
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                                                                                                        47.8%;
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Pred. No. 37;
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Pred. No.
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WO200175109-A2

30-MAR-2001; 2001WO-US010505.

31-MAR-2000; 2000US-00540967

(IMCL-) IMCLONE SYSTEMS INC.

Liao 'nj Hicklin DJ, Bohlen P;

WPI; 2001-656988/75.

New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.

Claim 1; Page 32; 44pp; English.

The method relates to an antibody or an antibody fragment, capable of specifically binding to a VE-cadherin, and of inhibiting VE-cadherin mediated adherens junction formation in vitro, but does not exert any significant or substantial effect on paracellular permeability in vitr The antibody or antibody fragment is capable of specifically binding to specifically binding to ρι

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  a VE-cadherin. The antibody or antibody fragment is useful for inhibiting angiogenesis (e.g. angiogenesis that is associated with a neoplastic disease, a solid tumour, an autoimmune disease, collagenous vascular disease, rheumatoid arthritis, an ophthalmological condition, diabeti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         site on a VE-cadherin within the 15 N-terminal amino acids of domain 1 of a VE-cadherin. The antibody or antibody fragment is useful for inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; age-related muscular degeneration; tumour neovascularisation; mouse; vE-cadherin N-terminal domain 1.
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                                                                                                                                   New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
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The method relates to an antibody or an antibody fragment, capable of

Example 2; Fig 2; 44pp;

English

New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.

2001-656988/75

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VB-cadherin; antibody binding peptide; angiogenesis; neoplastic disease; VB-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma; carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; usecularisation; blood vessel proliferation disorder; bege-related muscular degeneration; tumour neovascularisation; vB-cadherin N-terminal domain 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 103
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            VE-cadherin N-terminal domain 1 antibody binding peptide #3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU08779;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU08779 standard; peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      terminal domain
                                                                                                                                                                                                                                                                                                                                   31-MAR-2000; 2000US-00540967.
                                                                                                                                                                                                                                                                                                                                                                                                     30-MAR-2001; 2001WO-US010505
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO200175109-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mammalia
                                                                                                                                                                                                         Liao
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
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15; Conserv
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                                                                                                                                                                                                      Hicklin DJ,
                                                                                                                                                                                                                                                                           IMCLONE SYSTEMS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DWIWNQMHIDEEKNE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                                                                                                                             Bohlen
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4; I
1.7e-06;
thes 0;
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Claim 1; Page 32; 44pp; English.

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                                                                                                                                                                                                                                                                                  paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition, diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma; carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenosa; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder; age-related muscular degeneration; tumour neovascularisation; human; vE-cadherin N-terminal domain 1.
                                                                                                       31-MAR-2000; 2000US-00540967.
                                                                                                                                            30-MAR-2001; 2001WO-US010505
WPI; 2001-656988/75
                                   Liao F,
                                                                                                                                                                                   11-OCT-2001.
                                                                                                                                                                                                                        WO200175109-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The method relates to an antibody or an antibody fragment, capable of specifically binding to a VE-cadherin, and of inhibiting VE-cadherin mediated adherens junction formation in vitro, but does not exert any significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a site on a VE-cadherin within the 15 N-terminal amino acids of domain 1 of a VE-cadherin. The antibody or antibody fragment is useful for inhibiting disease, the antibody antibody fragment is useful for inhibiting disease, a solid tumour, an autoimmune disease, collagenous vascular disease, rheumatoid arthritis, an ophthalological condition, diabetic
                                                                                                                                                                                                                                                                                                                                                                                                                                              VE-cadherin mediated
                                                                                                                                                                                                                                                                                                                                                                                                                                                           VE-cadherin; angiogenesis; neoplastic disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human VE-cadherin N-terminal domain 1 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           27-FEB-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAU08785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU08785 standard; protein; 104 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   metastasis, rheumatoid arthritis or age-related muscular degeneration). These may also be used for reducing or inhibiting tumour vasculature in a mammal. The nucleic acid that encodes the antibody or is useful in gene therapy, particularly for inhibiting angiogenesis or tumour neovascularisation. This sequence represents a VE-cadherin N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               retinopthy, retrolental fibroplasia or neovascular glaucoma) or tumour metastasis (e.g. carcinomas, gliomas, sarcomas, adenocarcinomas, adenosarcomas, adenomas, leukaemic tumours or lymphoid tumours). The composition or antibody is also useful for treating a cell proliferation disorder associated with vascularisation (e.g. blood vessel proliferation disorders, fibrotic disorders, angiogenesis, tumour growth, tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                domain 1 antibody binding peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
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                                                                      IMCLONE
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                               Hicklin DJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DWIWNQMHIDEEKN 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                    SYSTEMS INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94.6.;
100.0%; FI
                                                                                                                                                                                                                                                                                                                                                                                                                                              adherens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 87; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                    junction formation; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1.1e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 15;
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05-MAY-1998; 06-NOV-1998; 20-JAN-1999; 08-MAR-1999;

98US-00073040. 98US-00187859. 99US-00234395. 99US-00264516.

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RESULT 5
AAY64578
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cc specifically binding to a WE-cadherin, and of inhibiting VE-cadherin Cc mediated adherens junction formation in vitro, but does not exert any cc significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a cc at the on a VE-cadherin within the 15 N-terminal amino acids of domain 1 of Cc argiogenesis (e.g. angiogenesis that is associated with a neoplastic Cc disease, a solid tumour, an autoimmune disease, collagenous vascular Cc disease, rheumatoid arthritis, an ophthalmological condition, diabetic retinopathy, retrolental fibroplasia or neovascular glaucoma) or tumour adenosarcomas, adenomas, gliomas, sarcomas, adenocarcinomas, cc composition or antibody is also useful for treating a cell proliferation composition or antibody is also useful for treating a cell proliferation disorders, fibrotic disorders, angiogenesis, tumour growth, tumour contents acid that encodes the antibody or is useful in gene neovascularisation. This sequence represents a human VE-cadherin N-vx
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                           05-MAY-1999;
                                                                                                                                                                                                                          cadherin related neuronal receptor; LI-cadherin; protocadherin; desmoglein; desmocollin; calcium binding; cancer; tumour; obesi rheumatoid arthritis; multiple sclerosis; diabetes; metastasis;
                                                                                                                                                                                                                                                                            Unidation; cadnerin extracellular domain; cell adhesion recognition; OB-cadherin; cadherin-5; cadherin-6; cadherin-7; cadherin-8; cadherin cadherin-14; cadherin-15; T-cadherin; PB-cadherin;
                                                                                                                                                        WO9957149-A2
                                                                                                                                                                                                                    neurological
                                                                                                                                                                                                                                                                                                                              Modulation;
                                                                                                                                                                                                                                                                                                                                                        Nonclassical cadherin extracellular domain SEQ
                                                                                                                                                                                       Mammalia
                                                                                                                                                                                                                                                                                                                                                                                                                              AAY64578;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAY64578 standard; peptide; 108 AA
                                                                                                                                                                                                                                                                                                                                                                                                02-MAR-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                    inhibition;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The method
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 2; Fig 2; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       14;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DWIWNOMHIDEEKN 14
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             relates to an antibody or an antibody fragment, ly binding to a VE-cadherin, and of inhibiting V
                                                                                                                                                                                                                                                                                                           cadherin extracellular domain; cell
                                                                                                                                                                                                                                                                                                                       nonclassical cadherin mediated cell adhesion; CAR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ΑA
                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                       99WO-CA000363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             94.6%; but
100.0%; Prr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 87; Pred. No.
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                                                                                                                                                                                                                                            obesity;
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                                                                                                                                                                                                                                                                                           cadherin-12;
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(ADHE-) ADHEREX TECHNOLOGIES INC

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WG.

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cc angiogenesis in a mammal, inducing apoptosis in a nonclassical cadherin-
cc expressing cell, preventing or treating obesity in a mammal, stimulating
cc blood vessel regression in a mammal, enhancing drug delivery to the
central nervous system, treating a demyelinating neurological disease,
cc increasing vasopermeability in a mammal, enhancing adhesion of
cc nonclassical cadherin-expressing cells, inhibiting synaptic stability in
cc nonclassical cadherin-expressing cells, inhibiting synaptic stability in
cc a mammal, or preventing pregnancy in a mammal. They can also be used for
cc e.g. enhancing or directing neurite outgrowth, facilitating wound healing
cc reducing scar tissue, or enhancing adhesion of foreign tissue in a
cc mammal. They can also be used for treating e.g. psoriasis, arthritis, age
crelated macular degeneration, multiple sclerosis and diabetes. The
cc products can also be used for detection and diagnosis and in bioreactors.
cc AAY60592 to AAY64572 represent specifically claimed peptides, and
cc AAY64573 to AAY64643 and AAZ33183 to AAZ33186 represent sequences used in
cc the exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New cadherin modulating agents, used for modulating nonclassical cadherin -mediated functions for treating e.g. cancers, obesity, rheumatoid arthritis, multiple sclerosis, diabetes or a neurological disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig 2; 252pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Blaschuk OW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           inhibiting adhesion of nonclassical-cadherin expressing cells in a mammal, enhancing delivery of a drug through the skin of a mammal, enhancing delivery of a drug to a tumour in a mammal, treating cancer a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The present invention describes cadherin modulating agents (MA) comprising peptides which comprise a nonclassical cadherin cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recognition (CAK) sequence in a concions. They can be used for e.g. nonclassical cadherin-mediated functions. They can be used for e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recognition
                                                                                                                                                                                        Homo sapiens.
Synthetic.
                                                                                                                                                                                                                                               Human; KV protein; KVE702; angiogenic factor antagonist; angiogenesis; vascular endothelial structure regulator; cancer; vascular endothelium; tumour; blood vessel; epithelial cell; cytostatic; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                        AAU11276 standard; protein; 566 AA.
                                                                           04-MAY-2001; 2001WO-GB001956.
                                                                                                                  08-NOV-2001
                                                                                                                                                      WO200183562-A2
                                                                                                                                                                                                                                                                                                                                                                  26-MAR-2002
                                       04-MAY-2000; 2000GB-00010630.
 (UYWA-) UNIV WALES COLLEGE OF MEDICINE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
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                                                                                                                                                                                                                                                                                                                           recombinant KVE702 polypeptide.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       σ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              14; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DWIWNQMHIDEEKN 18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CAR) sequence. The MAs can be used for modulating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gour BJ,
                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    94.6%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Byers S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 87;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 3; L., 3. 1e-05;
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RABSULT 7
AAU11279
ID 26-N
XX
IV Vass
KW Huma
KW Vass
KW Luma
KW Luma
KW Luma
KW Luma
KW WO21
KW WO21
IV Vass
FT Miss
FT Juan
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IV Vass
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Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel nucleic acid for inhibition of angiogenesis and prophylaxis or treatment of cancer, comprises both an angiogenic factor antagonist and vascular endothelial structure regulator.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and also cells and compositions containing the sequences, are useful in treating or preventing cancer or angiogenesis in mammals, in particular humans. KV proteins are also useful for regulation of the development of blood vessels and their formation, in the vascular endothelium and/or tumour. The KVE702 gene and its fragments are useful in transfection of human epithelial cells and to generate products suitable for angiogenesis intervention. This sequence represents the human KVE702 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention relates to recombinant nucleic acid sequences that encode both an angiogenic factor antagonist and a vascular endothelial structure regulator, collectively referred to as a KV protein. KV DNA and proteins,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Fig 2;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 566 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; KV protein; KVE702; angiogenic factor antagonist; angiogenesis; vascular endothelial structure regulator; cancer; vascular endothelium; tumour; blood vessel; epithelial cell; cytostatic; gene therapy; J37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAU11279 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human recombinant J37 polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          26-MAR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAU11279;
                                                                                                                                                                                      04-MAY-2000;
                                                                                                                                                                                                                    04-MAY-2001; 2001WO-GB001956.
                                                                                                                                                                                                                                                       08-NOV-2001.
                                                                                                                                                                                                                                                                                      WO200183562-A2
                                                                                                                                                                                                                                                                                                                                        Misc-difference 518
                                                                                                                                                                                                                                                                                                                                                                                       Synthetic.
                                                                                                                                                     (UYWA-) UNIV WALES COLLEGE OF MEDICINE.
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DB; AAS16965.
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                                                                                                                                                                                      2000GB-00010630.
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                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers
                                                                                                                                                                                                                                                                                                                      note= "Encoded by ATC"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                66pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           94.6%; but
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               594 AA
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Pred. No.
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Novel nucleic acid for inhibition of angiogenesis and prophylaxis or treatment of cancer, comprises both an angiogenic factor antagonist and vascular endothelial structure regulator.

WPI; 2002-066521/09 N-PSDB; AAS16975.

Disclosure;

Fig 15; 66pp; English

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RESULT 8
AAW25634
ID AAW25634
ZX AAW25634
AC AAW2
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AC AAW2
XX OAW
DT 25-M
DT 25-M
DT 03-N
XX UDG
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Best Local (
This sequence represents human cadherin-5. The invention specifically provides details of human cadherin-5, -8, -11, -12 and -13, and rat cadherin-8, -5, -11 and -13. Cadherins are calcium-dependent cell adhesion proteins. They are glycosylated integral membrane proteins that have an N-terminal extracellular domain that determines binding specificity, a hydrophobic membrane spanning region and a C-terminal cytoplasmic domain, which is highly conserved among members of the
                                                                                                                                                                                                                               Claim
                                                                                                                                                                                                                                                                                                                                  N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-APR-1992;
19-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   01-NOV-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  superfamily;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (DOHE-) DOHENY EYE INST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human cadherin-5
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03-NOV-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                                                                                                                                                                                                  AAT85401.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DWIWNOMHIDEEKN 62
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   594 AA;
                                                                                                                                                                                                                                                                     rat cadherin polypeptide(s)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the invention
                                                                                                                                                                                                                    69-72; 56pp; English.
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cytoskeleton;
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(first en
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93US-00049460
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Pred. No.
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    mediate cell-cell adhesion.

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Best Local
                    The present sequence is full length human cadherin-5, which is a Ca2+ dependent cell adhesion protein. The human cadherin cDNA was isolated from a placental cDNA library, using probes based on homologous rat cadherin cDNA. Antibodies or fragments that specifically bind the human cadherin can be used to purify the cadherin, determine its tissue expression and antagonise its ligand/antiligand binding activities. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                        Claim 5;
                                                                                                                                                             Antibodies to cadherin proteins - useful as cadherin antagonists, etc
                                                                                                                                                                                                N-PSDB; AAT61921.
                                                                                                                                                                                                              WPI; 1997-108328/10
                                                                                                                                                                                                                                          Suzuki
                                                                                                                                                                                                                                                                                               17-APR-1992;
19-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    proteins may be isolated by using anti-cadherin antibodies. These antibodies may also be used to modulate the activity of cadherin and to determine the tissue specific distribution of cadherin proteins. Each subclass of cadherins has a unique tissue distribution pattern. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                        26-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                                              US5597725-A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                            Ca2+ dependent; cell adhesion protein; placental; cadherin; rat; brain; human; antibody; purification; determination; tissue expression;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         25-MAR-2003
13-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       through eatenins and other cytoskeleton-associated proteins. The novel cadherin proteins may be used in the analysis of the role of cadherins various cancers. Sequence analysis of the cadherin proteins also allows investigation of the structure and function of cadherin. The cadherin
                                                                                                                                                                                                                                                                                                                                                                    28-JAN-1997
                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Full length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAW13130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAW13130 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 780 AA;
                                                                                                                                                                                                                                                                      (DOHE-) DOHENY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 superfamily. The C-terminal domain interacts with the cytoskeleton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                44 DWIWNOMHIDEEKN 57
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        14;
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                                                                                                                                    Col 75-78; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (revised)
(first entry)
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93US-00049460.
                                                                                                                                                                                                                                                                                                                                     94US-00188228.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cadherin-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             780
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Pred. No.
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Best Local Similarity
Matches 14; Conserv

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100.0%; 94.6%;

Score 87; Pred. No.

9.6e-05; DB 2;

Length 780;

Query Match

Sequence

780

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44

DWIWNOMHIDEEKN 14 DWIWNQMHIDEEKN

57

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ABBSULT 10
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                                                                                                                                                                             CC portion and an extracellular portion of the cadherin, and includes a beta collection and an extracellular portion of the cadherin, and includes a beta collection of the soluble cytoplasmic portion of the cadherin in a commandian cell. Also described is a pharmaceutical composition for commandian cell. Also described is a pharmaceutical composition for commandian comprising a pene therapy vehicle harbouring a polynucleotide contains: (a) a nucleotide sequence encoding an o-catenin; and (b) can upstream promoter for directing expression of the o-catenin; and (c) and can be used in the suppression of beta-catenin-mediated commandian cell. They can be used for treating cancers associated with canbourmally high activity levels of beta-catenin such as colon cancers and commandian cells. The present sequence represents human VE-cadherin which color is used in the exemplification of the present invention
                              Query Match
Best Local
Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present invention describes a pharmaceutical composition for treating cancer associated with abnormally high beta-catenin activity. The pharmaceutical composition comprises a gene therapy vehicle harbouring a polynucleotide that contains: (i) a nucleotide sequence encoding a polynucleotide that contains:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New construct encoding soluble cytoplasmic portion of cadherin including beta catenin binding domain useful in treating cancer associated with high beta-catenin activity e.g. colon cancer and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-MAY-1998;
26-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-JUL-2001; 2001US-00905983.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                soluble cytoplasmic portion of a cadherin which lacks a transmembrane
                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 3; Page 56-58; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEIG/) GEIGER B.
(BENZ/) BEN-ZE'EV A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (SADO/) SADOT E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2002-499105/53.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     VE-cadherin protein SEQ ID NO:52
14;
                                     Similarity
                                                                                                                                 784 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Ben-Ze'ev A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98IL-00124650.
99US-00318633.
                                  94.6%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sadot
   0;
                                  Score 87;
Pred. No.
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      Mismatches
                                     DB 5; Le
                                                                Length 784;
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DWIWNQMHIDEEKN 14

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48

DWIWNOMHIDEEKN

61

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RESULT

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                                  Best Loc
Matches
                                                               Query Match
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22-FEB-2001; 2001US-00791390.

19-APR-2001; 2001US-0285475P.

03-AUG-2001; 2001US-0310025P.

13-NOV-2001; 2001US-0350666P.

29-NOV-2001; 2001US-0334244P.
                                                                                                                                          The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence at least 80% identical to any of the angiogenesis-associated human polynucleotide sequences given in the specification. These angiogenesis-associated polynucleotide sequences comprise genes that exhibit changes in expression levels as function of time in tissue undergoing angiogenesis. The method and the polynucleotide sequences of angiogenesis are setful for diagnosing and treating angiogenesis and angiogenesis-associated diseases e.g. cancer. The polynucleotide sequences are also useful in the gene therapy of such disorders. The angiogenesis-associated proteins encoded by the polynucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                       Detecting angiogenesis-associated transcript in a cell for diagnosing and treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human, angiogenesis-associated transcript, angiogenesis, angiogenesis-associated disease, cancer, cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU03507 standard; protein; 784 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO200279492-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Angiogenesis-associated human protein sequence #52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              21-JAN-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABU03507;
                                                                                                                                                                                                                                                                                                                                                                          Example 2; Page 230; 291pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                          undergoing angiogenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB; ABX08791.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Murray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-FEB-2002; 2002WO-US004915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-OCT-2002.
                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (EOSB-)
                                                                                                                             ABU03456-ABU03569 represent angiogenesis-associated protein
                                                  госат
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003-040681/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EOS
                                   14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DWIWNQMHIDEEKN
                                                   Similarity
                                                                                                 784
DWIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Glynne R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      BIOTECHNOLOGY INC
                                  94.6%;
llarity 100.0%;
Conservative (
                                                                                                 AA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Watson SR,
                                   0;
                                                   Score 87; DB 6; L Pred. No. 9.6e-05;
                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Aziz
                                                                    Length 784;
                                        Indels
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                                        Gaps
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                                                                                                                                                      The invention relates to a method for detecting a lung cancer-associated CC transcript in a cell from a patient, comprising contacting a biological CC sample from the patient with a polynucleotide that selectively hybridises CC increased or decreased expression in lung cancer samples. Lung cancer CC associated polynucleotides and polypeptides are used for identifying a cinhibiting proliferation of a lung cancer-associated polypeptide, for CC cancer in a patient and for treating a mammal having lung cancer by CC administering a modulatory compound identified. The methods are useful CC ung cancer or other benign or precancerous lesions, e.g. atelectasis, CC emplysema, bronchitis, chronic obstructive pulmonary disease, fibrosis, Chypersema, bronchitis, chronic obstructive pulmonary fibrosis, asthma and CC for diagnostic purposes and as targets for screening for therapeutic CC compounds that modulate lung cancer, such as antibodies. Sequences CC ABU56408-ABU56745 represent lung cancer, such as antibodies. Sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABU56570
ID ABU5
                                                            Matches
                                                                         Query Match
Best Local :
                                                                                                                      Sequence 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 27; Page 314; 453pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Detecting a lung cancer-associated transcript in a cell from a patient for treating lung cancer, by contacting a biological sample from the patient with a polynucleotide that exhibits increased or decreased
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Aziz
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-APR-2001; 2001US-0284770P.

10-MAY-2001; 2001US-029043PP.

09-NOV-2001; 2001US-033945P.

13-NOV-2001; 2001US-0350666P.

29-NOV-2001; 2001US-035070P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lung cancer-associated polypeptide; cytostatic; emphysema; antiinflammatory; antiasthmatic; non-small cell lung cancer; atelect; small cell lung cancer; benign lesion; precancerous lesion; bronchit; chronic obstructive pulmonary disease; hypersensitivity pneumonitis; interstitial pulmonary fibrosis; fibrosis; asthma; bronchiectasis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (EOSB-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200286443-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Unidentified
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABU56570 standard; protein; 784 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               12-APR-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-APR-2002; 2002WO-US012476
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lung cancer-associated polypeptide #163.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       02-APR-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU56570;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   2003-093161/08.
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   48
                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABX76299.
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                         DWIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Murray R;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          in lung
                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                BIOTECHNOLOGY INC
                                                                                                                    ĀΑ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            2002US-0372246P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cancer.
                                                                      94.6%;
61
                                                        0;
                                                                                   Score 87;
                                                                        Pred. No.
                                                      Mismatches
                                                      9.6e-05;
hes 0;
                                                                                    DB 6;
                                                                                 Length 784;
                                                   0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     bronchitis;
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                                                   Gaps
                                                   0;
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RESULT 13
ADA03363
ID ADA03
XX ADA033
XX DA03
XX DA03
XX Cytos
KW Cytos
CX MO200
XX WO200
XX WO200
XX WO200
XX WD1;
DR WPI;
DR Claim
XX 
                                                                                                                                                                                                                         RESULT 14
AAU08777
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                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        The invention relates to a DNA encoding an endostatin receptor protein (human vascular endothelial (VE) cadherin (I)) or its partial peptides or encoding a protein derived from (I) by addition, deletion or substitution of one or more amino acid residues and having similar binding activity to endostatin. The sequence can be used in the regulation of angiogenesis in the treatment and prevention of diseases associated with the formation of new blood vessels, including cancer, cancer proliferation, diabetic retinopathy and rheumatoid arthritis. This sequence corresponds to the VE
                                                                                             27-FEB-2002
                                                                                                                                              AAU08777;
                                                                                                                                                                                                 AAU08777 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Vascular endothelial cadherin is a receptor to endostatin for screening endostatin agonists and antagonists as angiogenesis inhibitors and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 2; Page 44-47; 56pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; ADA03362.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-430528/40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        endostatin receptor; angiogenesis inhibitor; human;
vascular endothelial cadherin; angiogenesis; blood vessel; cancer;
diabetic retinopathy; rheumatoid arthritis; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Kubota S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-OCT-2001; 2001JP-00333295.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            28-OCT-2002; 2002WO-JP011143.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO2003038096-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cytostatic; antidiabetic; ophthalmological; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      06-NOV-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA03363 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KUBO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local
                                                                                                                                                                                                                                                                                                                               48
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                                                                                                                                                                                                                                                                                                                                                                                                                                  14;
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NEMOTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                               DWIWNOMHIDEEKN
                                                                                                                                                                                                                                                                                                                                                                            DWIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for cancer development and
                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AA;
                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   H W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           endothelial cadherin protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     which serves
                                                                                                                                                                                              peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     94.6%;
                                                                                                                                                                                                                                                                                                                            61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Japanese.
                                                                                                                                                                                              15
                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 87; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98
                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   an endostatin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                       9.6e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 6;
                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 784;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        receptor protein
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                          0
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VE-cadherin;

VE-cadherin N-terminal domain 1 antibody binding peptide #1.

antibody binding peptide; angiogenesis; neoplastic disease;

VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; gliom

glioma;

Novel

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RESULT 15
ABO00590
ID ABO00
XX
AC ABO00
XX
DT 06-AU
                                                                                                                                                                                                                                                                                                                                                                                                 The method relates to an antibody or an antibody fragment, capable of compositions to a VE-cadherin, and of inhibiting VE-cadherin comediated adherens junction formation in vitro, but does not exert any companies or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a composition or antibody fragment is capable of specifically binding to a vE-cadherin. The antibody or antibody fragment is useful for inhibiting companies (e.g. angiogenesis that is associated with a neoplastic composition arthicts, an autoimmune disease, collagenous vascular consists (e.g. carcinomas, gliomas, sarcomas, adenocarcinomas, retunours or lymphoid tumours). The composition or antibody is also useful for treating a cell proliferation disorder associated with vascularisation (e.g. blood vessel proliferation composition or antibody is also useful for treating a cell proliferation disorders, inspective disorders, adenocarcinomas, retunours or lymphoid tumours). The composition or antibody is also useful for treating a cell proliferation composition or antibody is also useful for treating a cell proliferation composition of inspective disorders, and composition (e.g. blood vessel proliferation composition described by the vascularisation (e.g. blood vessel proliferation). These may also be used for reducing or inhibiting tumour growth, tumour composition and provides the antibody or is useful in gene therapy, particularly for inhibiting angiogenesis or tumour resculature in a merodal arthibation. This sequence represents a VE-cadherin N-terminal
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                                                                                                                                                                                                                                                                                    Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   31-MAR-2000; 2000US-00540967.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    11-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 32; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         30-MAR-2001; 2001WO-US010505.
                                          ABO00590;
                                                                                ABO00590 standard;
                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                         domain 1 antibody binding peptide
  06-AUG-2003
                                                                                                                                                                                                                                                                                      Local Similarity
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LI
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                                                                                                                                                                                                                                                                                                                                                 15
                                                                                                                                                                                     DEIWNOMHIDEEKNE 15
                                                                                                                                                                                                                         DWIWNOMHIDEEKNE 15
                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                 AA,
    (first entry)
                                                                                  protein; 167 AA
                                                                                                                                                                                                                                                                                      84.8%;
93.3%;
                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                        Score 78; DB 4;
Pred. No. 2.8e-05;
                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                           Length 15
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peripheral nervous system disease; neuropathy; haematopoiesis; bone; myeloid disorder, lymphoid cell disorder; plateLet disorder; tendon; regeneration; cartilage; tendon; ligament; nerve tissue growth; tissue repair; wound healing; burn; ulcer; osteoporosis; cancer; osteoparthritis; bone degenerative disorder; periodontal disease; gut protection; lung fibrosis; liver fibrosis; reperfusion injury; gut protection; infection; autoimmune disorder; allergic reaction; immune deficiency; infection; autoimmune disorder; allergic reaction; thrombolysis; thrombosis; coagulation disorder; hereditary disorder; biorhythm; circadian cycle; fertility; metabolism; catabolism; anabolism; notropic; neuroprotective; antiparkinsonian; anticonvulsant; hemostatic; vulnerary; antiulcer; osteopathic; antiarthritic; rescriptic; viricide; immunosuppressive; vasotropic; immunostimulant; antisacterial; fungicide; immunosuppressive; vasotropic; immunostimulant; antisacterial; curvatario; viricide; viricides
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cell differentiation; totipotent; stem cell; transplantation; bio-sensor; neuroepithelial cell; autoimmune disease; neural cell; genetic disorder; nerve; brain tissue; central nervous system disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; angiogenesis; cytokine; cell differentiation; totipoter
antirheumatic; antidiabetic; antiasthmatic; cytostatic; virucide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human polypeptide #177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cell proliferation; pluripotent;
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Homo sapiens

20-MAR-2003.

13-SEP-2002; 2002WO-US029001.

13-SEP-2001; 2001US-0322511P. 12-SEP-2002; 2002US-00243552.

(HYSE-) HYSEQ INC.

Tang YT, Yang Y, Wang 2 Weng Ġ, Ma Κ.

N-PSDB; ACD05667. 2003-313249/30

Novel nucleic acids and polypeptides for diagnosis, treatment of central and peripheral nervous system diseases and neuropathies, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic lateral sclerosis.

Claim 20; SEQ ID NO 513; 300pp; English.

An The present invention relates to the isolation of novel human CC polynucleotide sequences and their encoding polypeptides. The novel CC polypeptides exhibit activities relating to angiogenesis, cytokine, cell CC proliferation, cell differentiation, antiinflammatory, and stem cell CC proliferation, cell differentiation, antiinflammatory, and stem cell CC growth factor activities. The polypeptides are involved in the CC growth factor activities. The polypeptides are involved in the CC growth factor activities. The polypeptides can be used to augment or useful for re-engineering damaged or diseased CC tissues, transplantation, manufacture of bio-pharmaceuticals and CC evelopment of bio-sensors. The polypeptides can be used to manipulate CC used to augment or replace cells damaged by illness, autoimmune disease, cc accidental damage or genetic disorders. The polypeptides induce the CC accidental damage or genetic disorders. The polypeptides induce the CC accidental damage or genetic disorders. The polypeptides induce the CC diseases and neural cells and regeneration of nerve and brain tissue and are useful for the treatment of central and peripheral nervous system CC diseases and neuropathies, such as Alzheimer's, Parkinson's disease, cc polypeptides are also involved in chemotactic or chemokinetic activity, regulation of haematopoiesis and are useful for treating myeloid or regeneration of bone, cartilage, tendon, ligament and/or nerve tissue growth, in tissue repair, healing of burns, incisions, ulcers, for cregeneration endorses, solveoarthritis, bone degenerative disorders, and periodontal disease. The polypeptides are also useful for gut protection or regeneration and treatment of lung or liver fibrosis, reperfusion in various tissues, various immune deficiencies and disorders ing severe combined immunodeficiency (SCID), bacterial or fung disorders (e.g. multiple sclerosis, or fungal

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arthritis, diabetes mellitus, myasthenia gravis), allergic reactions and cc conditions, such as asthma or other respiratory problems. The conditions, such as asthma or other respiratory problems. The cc disorders are involved in thrombolysis or thrombosts and are useful in ct treatment of various coagulation disorders (including hereditary coagulation as haemophilia) or to enhance coagulation and other causes. The polypeptides exhibit immune stimulating or immune cc authorism activity, and are useful for treating autoimmune diseases or creater. They also inhibit the growth lifection or function of infectious cycles of rhythms, fertility of male or female subjects, metabolism, cc yycles of the invention. Note: The sequence data for this patent cc electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequence data for this patent cc electronic format directly from WIPO at ftp.wipo.int/pub/published_pct_sequences

20 Sequence 167 AA;

Query Match Similarity 53.8%; Score 52; DB 6; Length 167;
Best Local Similarity 53.8%; Score 52; DB 6; Length 167;
Matches 7; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Query Match Similarity 53.8%; Pred. No. 4.1;
Matches 7; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

Search completed: July 29, 2004, 11:34:54

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780 1 US-08-332-643-44 Sequence 54, 250-200.0 780 1 US-08-332-638-50 Sequence 13, 250-200.0 780 1 US-08-332-638-50 Sequence 13, 250-200.0 780 1 US-08-32-638-50 Sequence 13, 250-200.0 780 1 US-08-32-638-44 Sequence 13, 250-200.0 780 1 US-08-32-638-44 Sequence 44, 250-200.0 793 1 US-08-32-638-54 Sequence 45, 250-200.0 793 1 US-08-32-638-54 Sequence 25, 250-200.0 793 1 US	3 92 100.0 780 1 US-09-535-852-6 Sequence 6, 92 100.0 780 1 US-08-188-228-50 Sequence 6, 92 100.0 780 1 US-08-32-638-50 Sequence 50, 92 100.0 780 1 US-08-32-638-50 Sequence 50, 92 100.0 780 1 US-08-32-638-50 Sequence 50, 92 100.0 780 1 US-08-32-638-50 Sequence 13, 93 110 4 US-09-839-5428-13 Sequence 13, 94 53.3 110 4 US-09-839-5428-13 Sequence 13, 94 53.3 532 1 US-08-188-228-54 Sequence 44, 95 3.3 793 1 US-08-32-638-54 Sequence 44, 95 3.3 793 1 US-08-332-638-54 Sequence 48, 95 3.3 793 1 US-08-332-638-54 Sequence 48, 95 3.3 799 1 US-08-332-638-54 Sequence 49, 95 3.3 799 1 US-08-32-638-54 Sequence 49, 95 3.4 8.9 106 4 US-09-38-945-54 Sequence 49, 95 3.4 8.9 106 4 US-0	92 100.0 108 4 US-09-839-542B-6 Sequence 6, 3 92 100.0 108 4 US-09-315-825-6 Sequence 6, 4 92 100.0 780 1 US-08-188-228-50 Sequence 6, 5 92 100.0 780 1 US-08-332-643-44 Sequence 50 Sequence 10 US-08-332-643-44 Sequence 10 US-09-187-859-13 Sequence 11 US-09-187-859-13 Sequence 11 US-09-187-859-13 Sequence 11 US-08-332-638-44 Sequence 11 US-08-332-638-44 Sequence 12 US-08-332-638-44 Sequence 13 US-08-332-638-44 Sequence 13 US-08-332-638-44 Sequence 14 US-08-332-638-42 Sequence 14 US-08-332-638-42 Sequence 44 Sequence 44 Sequence 45 Sequence 45 Sequence 46 Sequence 47 Sequence 47 Sequence 48 Sequence 49 Sequence 39 Sequence 49 Sequence 39 Sequence 49 Sequence 4	1 92 100.0 108 4 US-09-187-859-6 Sequence 6, 3 92 100.0 108 4 US-09-395-428-6 Sequence 6, 3 92 100.0 108 4 US-09-395-428-6 Sequence 6, 4 92 100.0 780 1 US-08-188-228-50 Sequence 6, 92 100.0 780 1 US-08-188-228-50 Sequence 40, 5 92 100.0 780 1 US-08-32-643-44 Sequence 50, 7 49 53.3 110 4 US-09-839-5428-13 Sequence 13, 9 49 53.3 110 4 US-09-839-5428-13 Sequence 13, 10 4 US-09-839-5428-13 Sequence 13, 10 4 US-09-839-5428-13 Sequence 13, 10 4 US-09-839-5428-13 Sequence 14, 10 49 53.3 532 1 US-08-332-638-44 Sequence 54, 10 53.3 793 1 US-08-332-638-44 Sequence 54, 10 53.3 793 1 US-08-332-638-54 Sequence 54, 10 54 US-09-305-927-2 Sequence 48, 10 54 US-09-305-927-2 Sequence 21, 10 54 US-09-073-040-13 Sequence 13, 10 54 US-09-839-5428-45 Sequence 13, 10 54 US-09-839-5428-45 Sequence 44, 10 54 US-09-839-5428-45 Sequence 45, 10 54 US-09-839-5428-45 Sequence 25, 10 54 US-09-839-5428-45 Sequence 25, 10 54 US-0

45 48.9 106 4 US-09-264-516A-3 45 48.9 106 4 US-09-234-395-4 45 48.9 106 4 US-09-234-395-5 48.9 106 4 US-09-305-928-4 45 48.9 110 4 US-09-305-928-5 45 48.9 110 4 US-09-305-928-5 45 48.9 110 4 US-09-319-859-2 45 48.9 110 4 US-09-187-859-2 45 48.9 110 4 US-09-839-542B-2 45 48.9 110 4 US-09-839-542B-2 45 48.9 110 4 US-09-839-542B-2 45 48.9 110 4 US-09-839-852-4 45 48.9 110 4 US-09-333-852-2 45 48.9 110 5 US-08-738-349-1 45 48.9 796 1 US-08-738-349-6 45 48.9 796 1 US-08-332-643-52 46 48.9 796 1 US-08-332-643-52 47 48.9 796 1 US-08-332-643-52 48 48.9 796 1 US-08-332-633-58 48 48.9 796 2 US-08-333-349-6	45	44	. 4.	4.2	41	40	. 9	38	37	36	(L.	1 <u>1</u> 2) (s.	32	31	. U	29	200
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	US-08-738-349-4	US-08-738-349-2	US-08-332-638-58	US-08-332-643-52	US-08-188-228-58	US-08-738-349-6	US-08-738-349-12	US-09-535-852-22	US-09-535-852-4	US-09-839-542B-22	US-09-839-542B-4	US-09-187-859-22	US-09-187-859-4	US-09-305-928-5	US-09-305-928-4	US-09-234-395-5	US-09-234-395-4	US-09-264-516A-3

ALIGNMENTS

RESULT 1 US-09-187-859-6

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Sequence 6, Application US/09187859A

Patent No. 6358920

GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Blaschuk, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERLY-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.407C1
CURRENT FILING DATE: 1998-11-06
INUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO
LENGTH: 108
TYPE: PRT
; ORGANISM: Homo sapiens US-09-839-542B-6
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US-09-839-542B-6
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                                      SEQ ID NO 6
LENGTH: 108
TYPE: PRT
                                                                                                                                                                                                                                                     Sequence 6, Application US/09839542B Patent No. 6569996
GENERAL INFORMATION:
APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                    TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS FILE REFERENCE: 100086.407DI CURRENT APPLICATION NUMBER: US/09/839,542B CURRENT FILING DATE: 2001-04-20 NUMBER OF SEQ ID NOS: 4052
                                                                                                     SOFTWARE: PatentIn Ver.
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RESULT 3
US-09-535-852-6
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US-08-188-228-50
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PATENT NO. 6638911
GENERAL INFORMATION:
APPLICANT: Blachuk, Orest W.
APPLICANT: Symonds, James M.
APPLICANT: Symonds, James M.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
TITLE OF INVENTION: DESMOSOWAL CADHERIN-MEDIATED FUNCTIO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NUMBER OF SEQ ID NOS: 2009
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 6
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 50, Application US/08188228 Patent No. 5597725
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 100086.407C6
CURRENT APPLICATION NUMBER: US/05
CURRENT FILING DATE: 2001-05-21
APPLICATION NUMBER: US 08/049,460
FILING DATE: 19 APR 1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/872,643
FILING DATE: 17 APR 1992
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5597725and, Greta E.
REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
APPLICANT: Suzuki
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ENGTH: 108
                                                                                                                                                                           COMPUTER READABLE FORM:
MEDIUM TYPE: Flopy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/188,228
FILING DATE:
FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 62
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Suzuki, Shintaro TITLE OF INVENTION: CADHERIN
                                                                                                                                         CLASSIFICATION: 435
PRIOR APPLICATION DATA:
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hes 15; Conserv
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                                                                                                                                                                                                                                                                                                                                                                              CITY: Chicago
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6300 Sears Tower, 233 S. Wacker Drive
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100.0%; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CADHERIN MATERIALS AND METHODS
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Pred. No. 3.6e-07;
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; TOPOLOGY: linear; MOLECULE TYPE: protein US-08-188-228-50
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US-08-332-643-44
                                                                                              HOLECULE TYPE:
US-08-332-643-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Patent No.
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TELEFAX: (312) 474-044
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
                                            Matches
                                                        Query Match
Best Local Similarity
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                                                                                                                                                        TELERAX: (312) 984-974
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
SEQUENCE TARACTERISTICS:
LENGTH: 780 amino acid
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IEM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION: TELEPHONE: (312) 346-5750
                                                                                                                                                                                                                                                             FILING DATE:
ATTORNBY/AGENT INFORMATION:
NAME: NO. 5639634and, Greta
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27
                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 435
PRIOR APPLICATION NUMBER: 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                                                          TELEPHONE: (312) 984-9740
                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER:
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: Illinois
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DWIWNOMHIDEEKNT
                                                                                                                                              amino acid
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                                                                                                                                                            780 amino acids
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                                                                                                               protein
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100.0%; Pred. No.
                                                         100.0%;
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                                                           Score 92; DB 1;
Pred. No. 3.2e-06;
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DWIWNQMHIDEEKNT

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Sequence 50, App...
No. 5646250

Application US/08332638

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RESULT 7
US-09-187-859-13
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APPLICANT: Blaschik, Orest W.
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CAPHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 10086, 407C1
CURRENT APPLICATION NUMBER: US/09/187,859A
CURRENT FILING DATE: 1998-11-06
NUMBER: PSC ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 13
                                                                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                   Sequence 13, Application US/09187859A Patent No. 6358920
                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity 100.
Matches 15; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
ATTORNEY/AGENT INFORMATION:
NAME: No. 5646250and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31340
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELEFAX: (312) 474-044
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
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APPLICANT: Suzuki
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION DATA,
APPLICATION NUMBER: US 07/872,643
FILING DATE: 17 APR 1992
APPLICATION NUMBER: US/08/049,460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TELEPHONE: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: US/08
FILING DATE: 01-NOV-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION:
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                                                                                                                                                                                                                                                                                                               44 DWIWNQMHIDEEKNT 58
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100.0%; Pred. No. 3.2e-06;
. Mismatches 0;
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CADHERIN MATERIALS AND METHODS
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                                                                                                                                      FILE REFERENCE: 100086.407C6
CURRENT APPLICATION NUMBER: US/09/535,852
CURRENT FILING DATE: 2001-05-21
NUMBER OF SEQ ID NOS: 2009
SOFTWARE: FRStSEQ for Windows Version 4.0
SEQ ID NO 13
LENGTH: 110
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                               Matches
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Patent No. 6638911
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 13
LENGTH: 110
TYPE: PRT
ORGANISM: Homo sapiens
                                                         Query Match
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APPLICANT: Symonds, James M.
APPLICANT: Symonds, James M.
APPLICANT: GOUR, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND EMTHODS FOR MODULATING
TITLE OF INVENTION: DESMOSOMAL CADHERIN-MEDIATED FUNCTION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
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Best Local
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APPLICANT: Symonds, James Matthew
APPLICANT: Gymc, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
FILE REFERENCE: 100086.4407D1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/09/839,542B
CURRENT FILING DATE: 2001-04-20
NUMBER OF SEQ ID NOS: 4052
                                                                                                      TYPE: PRT
ORGANISM: Homo sapiens
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nes 7; Conserv
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2 WIWNOMHIDEE 12
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                             Similarity 7; Conserved
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                                         53.3%;
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                                       Score 49; DB 4;
Pred. No. 1.6;
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Pred. No. 1.6;
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Pred. No. 1.6;
                            Mismatches
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                        2;
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RESULT 10
US-08-188-228-44
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US-08-332-638-44
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Patent No. 5597725
GENERAL INFORMATION:
APPLICANT: Suzuki
                                                                                                                                                                                            Sequence 44, Application US/08332638 Patent No. 5646250
                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQUENCES: 62
CORRESPONDENCE ADDRESS:
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APPLICATION NUMBER: US 0:
FILING DATE: 17 APR 1992
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: U
FILING DATE: 19 APR
                                                                                                                                                                                                                                                                                                                                                                                                                                              MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-0448
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS
                                                                                                               NUMBER OF SEQUENCES: 6
CORRESPONDENCE ADDRESS:
                                                                                                                                            APPLICANT: Suzuki, Shintaro
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICATION NUMBER: FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: No. 5597725and, Greta REGISTRATION NUMBER: 35,302 REFERENCE/DOCKET NUMBER: 31
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                                                                                                                                                                                                                                                                                                                                                     53.3%;
Local Similarity 63.6%;
es 7; Conservation
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COUNTRY: U
                              CITY: Chicago
STATE: Illinois
                                                                 STREET:
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                                                                                ADDRESSEE:
                                                                                            ADDRESSEE: Marshall, O'Toole, Gerstein, Murray
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5597725
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                                                             6300 Sears Tower,
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                                                                                  Borun
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                                                                                                                                                CADHERIN MATERIALS AND METHODS
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Pred. No.
                                                                  233 S. Wacker Drive
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN PC-DOS/MS-DOS
SOFTWARE: PATENTIAN RALease #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/332,638
FILING DATE: 01-NOV-1994
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/049,643
FILING DATE: 17 APR 1992
APPLICATION NUMBER: US/08/049,460
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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TELEX: 25-3856
INFORMATION FOR SEQ ID NO: 44:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION: APPLICANT: Suzuki
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/049,460
FILING DATE: 19 APR 1993
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/872,643
FILING DATE: 17 APR 1992
ATTORNEY/AGENT INFORMATION:
NAME: NO. 5597725and, Greta E.
REGISTRATION NUMBER: 35,302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
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LENGTH: 532 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NAME: No. 5646250 and, Greta
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                       STREET: Chicago CITY: Chicago TIllinois
                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TELEPHONE: (312) 474-6300
TELEFAX: (312) 474-0448
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
                                                                                                                                                                                                  APPLICATION NUMBER: FILING DATE:
                                                                                                                                                                                                                                                                                                                                                         ZIP:
                                                                                                                                                                              CLASSIFICATION: 435
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5597725
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Suzuki, Shintaro
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Borun
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Marshall, O'Toole, Gerstein, Murray &
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           53.3%;
63.6%;
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                                                                                                                                                                                                                       US/08/188,228
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 49; DB 1; Length 532; Pred. No. 8.9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     31340
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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (312) 984-974
TELEX: 25-3856
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: No. 5639634and, Greta E.
REGISTRATION NUMBER: 35,302
REFERENCE/DOCKET NUMBER: 27866/30795
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 346-5750
TELEPAX: (312) 984-9740
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: IBM PC COMPATIBLE
COMPUTER: Patentin PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION NUMBER: US/08/332,643
                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (312)_474-6300
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                                                                                                                                                                                                                                                                                                                                                                              TYPE: amino acid TOPOLOGY: linear
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STREET:
CITY: Ch
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CLASSIFICATION: 435
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TELEFAX: 25-3856
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COUNTRY:
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ADDRESSEE: Bicknell
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE: amino acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ENGTH:
2 WIWNQMHIDEE 12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                56 WVWNOMFVLEE
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                                                                                                               Score 49; DB
Pred. No. 14;
2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       31340
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                                                                                                                                                                                                DB 1;
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RESULT 15
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US-08-332-638-54
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                                                                                                                                       Sequence 42, Application US/08188228
Patent No. 5597725
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                   Matches
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INFORMATION FOR SEQ ID NO:
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STREET: 60.
STREET: Chicago
CITY: Chicago
Illinois
                                                                                  TITLE OF INVENTION: CAN NUMBER OF SEQUENCES: 6: CORRESPONDENCE ADDRESS:
                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: 31
TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 474-6300
                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: PatentIn Release #1.0, Version #1.25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
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TITLE OF INVENTION:
NUMBER OF SEQUENCES:
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                                                         ADDRESSEE:
ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CADHERIN MATERIALS AND METHODS
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COMPUTER: LIAM PC compatible
COMPUTER: LIA
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5: geneseqp2002s:*
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Listing first 45 summaries
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

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ALIGNMENTS

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XX I carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder; age-related muscular degeneration; tumour neovascularisation; VE-cadherin N-terminal domain 1. WE-cadherin; antibody binding peptide; angiogenesis; neoplastic disease; VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma VE-cadherin N-terminal domain l antibody binding peptide #3. 27-FEB-2002 AAU08779; AAU08779 standard; (first entry) peptide; 15 À

glioma;

Mammalia.

WO200175109-A2

11-OCT-2001.

31-MAR-2000; 2000US-00540967.

30-MAR-2001; 2001WO-US010505.

(IMCL-) IMCLONE SYSTEMS INC.

Liao 뾔 Hicklin DJ, Bohlen P;

WPI; 2001-656988/75.

New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.

Claim 1; Page 32; 44pp; English.

The method relates to an antibody or an antibody fragment, capable of specifically binding to a VE-cadherin, and of inhibiting VE-cadherin mediated adherens junction formation in vitro, but does not exert any significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to а

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a VE-cadherin. The antibody or antibody fragment is useful for inhibit angiogenesis (e.g. angiogenesis that is associated with a neoplastic disease, a solid tumour, an autoimmune disease, collagenous vascular disease, rheumatoid arthritis, an ophthalmological condition, diabeti
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition, diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder;
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                                                                          New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disor age-related muscular degeneration; tumour neovascularisation; human; VE-cadherin N-terminal domain 1.
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Pred. No. 1.3e-07;
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The method relates to an antibody or an antibody fragment, capable

New cadherin modulating -mediated functions for

agents, used for modulating nonclassical cadherin treating e.g. cancers, obesity, rheumatoid

Blaschuk OW,

Gour BJ,

Byers

WPI; 2000-038791/03.

Example 2; Fig 2; 44pp; English

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AAX764250
ID AAX76
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XX AAY6
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06-NOV-1998;
20-JAN-1999;
08-MAR-1999;
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                                                                                                                                                                                                                                                                                                                            98US-00073040.
98US-00187859.
99US-00234395.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
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AAU11276
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CC expressing cell, preventing or treating obesity in a mammal, stimulating
CC blood vessel regression in a mammal, enhancing drug delivery to the
CC central nervous system, treating a demyelinating neurological disease,
CC increasing vasopermeability in a mammal, enhancing adhesion of
CC conclassical cadherin-expressing cells, inhibiting synaptic stability in
CC a mammal, or preventing pregnancy in a mammal. They can also be used for
CC e.g. enhancing or directing neurite outgrowth, facilitating wound healing
CC mammal. They can also be used for treating e.g. psoriasis, arthritis, age
CC related macular degeneration, multiple sclerosis and diabetes. The
CC products can also be used for detection and diagnosis and in bioreactors.
CC AAY6653 to AAY64572 represent specifically claimed peptides, and
CC AAY6653 to AAY64643 and AAZ33183 to AAZ33186 represent sequences used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local :
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Novel nucleic acid for inhibition of angiogenesis and prophylaxis or treatment of cancer, comprises both an angiogenic factor antagonist
                                                                                                              WPI; 2002-066521/09
N-PSDB; AAS16965.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; KV protein; KVE702; ang vascular endothelial structure
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tumour; blood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nonclassical cadherin-mediated functions. They can be used for e.g. inhibiting adhesion of nonclassical-cadherin expressing cells in a mammal, enhancing delivery of a drug through the skin of a mammal, enhancing delivery of a drug to a tumour in a mammal, treating cancer in a mammal, inhibiting metastasis of a cancer in a mammal, inhibiting
                                                                                                                                                                                                                                                                       (UYWA-) UNIV WALES COLLEGE OF MEDICINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 108 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAU11276 standard; protein; 566 AA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             exemplification of the present invention
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                                                                                                                                                                                                                                                                                                                                   2000GB-00010630.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          tein; KVE702; angiogenic factor antagonist; angiogenesis; thelial structure regulator; cancer; vascular endothelium vessel; epithelial cell; cytostatic; gene therapy.
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Pred. No.
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ches 0;
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Best Local :
 The invention relates to recombinant nucleic acid sequences that encode both an angiogenic factor antagonist and a vascular endothelial structure regulator, collectively referred to as a KV protein. KV DNA and proteins, and also cells and compositions containing the sequences, are useful in treating or preventing cancer or angiogenesis in mammals, in particular
                                                                                                               Novel nucleic acid for inhibition of angiogenesis and prophylaxis treatment of cancer, comprises both an angiogenic factor antagonic vascular endothelial structure regulator.
                                                                                                                                                                                  WPI; 2002-066521/09
N-PSDB; AAS16975.
                                                                                          Disclosure;
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Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; KV protein; KVE702; angiogenic factor antagonist; angiogenesis; vascular endothelial structure regulator; cancer; vascular endothelium; tumour; blood vessel; epithelial cell; cytostatic; gene therapy; J37.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and also cells and compositions containing the sequences, are useful in treating or preventing cancer or angiogenesis in mammals, in particular humans. KV proteins are also useful for regulation of the development of blood vessels and their formation, in the vascular endothelium and/or tumour. The KVE702 gene and its fragments are useful in transfection of human epithelial cells and to generate products suitable for angiogenesis intervention. This sequence represents the human KVE702 protein
                                                                                                                                                                                                                                                                                                                                                    08-NOV-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vascular endothelial structure regulator.
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                                                                                         Fig 15; 66pp;
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100.0%; Pr
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adhesion proteins. They are glycosylated integral membrane proteins that have an N-terminal extracellular domain that determines binding specificity, a hydrophobic membrane spanning region and a C-terminal cytoplasmic domain, which is highly conserved among members of the superfamily. The C-terminal domain interacts with the cytoskeleton through eatenins and other cytoskeleton-associated proteins. The novel cadherin proteins may be used in the analysis of the role of cadherins in various cancers. Sequence analysis of the cadherin, The cadherin proteins may be isolated by using anti-cadherin cadherin. The cadherin proteins may be isolated by using anti-cadherin antibodies. These antibodies may also be used to modulate the activity of cadherin and to determine the tissue specific distribution of cadherin proteins. Each
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03-NOV-1997
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                                                                                                                                                                                                                                                                                                                                            This sequence represents human cadherin-5. The invention specifically provides details of human cadherin-5, -8, -11, -12 and -13, and rat cadherin-8, -5, -11 and -13. Cadherins are calcium-dependent cell
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19-APR-1993;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          and rat cadherin polypeptide(s) - mediate cell-cell adhesion
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DWIWNOMHIDEEKNT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DWIWNQMHIDEEKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Col 69-72; 56pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         rin; rat; calc
cytoskeleton;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (revised)
(first entry)
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93US-00049460.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /note= "encoded by AAG"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein; 780
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                63
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            eatenin; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B
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RESULT 8 ABB81477 ID ABB8

ABB81477 standard;

protein; 784

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RRESULT 7
AAW13130
ID AAW13131
AC AAW13130
AC AAW13130
AC AAW1
AC AAW1
AC AAW1
AC AAW1
AC CA2
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                                                                                           Query Match
Best Local S
Matches 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ca2+ dependent; cell adhesion protein; placental; cadherin; rat; brain; human; antibody; purification; determination; tissue expression; binding antagonist; calcium ion.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          25-MAR-2003
13-MAY-1997
                                                                                                                                                                                                                                      The present sequence is full length human cadherin-5, which is a Ca2+ dependent cell adhesion protein. The human cadherin cDNA was isolated from a placental cDNA library, using probes based on homologous rat cadherin cDNA. Antibodies or fragments that specifically bind the human cadherin can be used to purify the cadherin, determine its tissue expression and antagonise its ligand/antiligand binding activities. (Updated on 25-MAR-2003 to correct PF field.)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Suzuki S;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Full length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW13130;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW13130 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 5; Col 75-78; 59pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1997-108328/10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-APR-1992;
19-APR-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 26-JAN-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-JAN-1997
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                                                                                                                                                                                         Sequence 780 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Antibodies to cadherin proteins - useful as cadherin antagonists, etc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (DOHE-) DOHENY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             тосат
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44 DWIWNOMHIDEEKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15; Conservative
44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 DWIWNOMHIDEEKNT
                                                                                                15;
                                1 DWIWNQMHIDEEKNT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAT61921
                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human cadherin-5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ΑA;
                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (revised)
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EYE INST.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       92US-00872643.
93US-00049460.
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                                                                                                                       100.0%;
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Pred. No.
                                                                                                                       Score 92;
Pred. No.
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                                                                                                     Mismatches
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le-05;
                                                                                                                       DB 2;
1e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 780;
                                                                                                                                                Length 780;
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RESULT 9
ABU03507
ID ABU0
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AC ABU0
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                                                                                                                                                                                                                                                                           The present invention describes a pharmaceutical composition for treating cancer associated with abnormally high beta-catenin activity. The CC cancer associated with abnormally high beta-catenin activity. The CC pharmaceutical composition comprises a gene therapy vehicle harbouring a composition of a cadherin which lacks a transmembrane contains; (i) a nucleotide sequence encoding a composition and an extracellular portion of the cadherin, and includes a beta catenin binding domain; and (b) an upstream promoter for directing composition of the soluble cycoplasmic portion of the cadherin in a commandian cell. Also described is a pharmaceutical composition for commandian cell. Also described is a pharmaceutical composition for contains; (a) a nucleotide sequence encoding an o-catenin; and (b) catenin comprising a gene therapy vehicle harbouring a polymucleotide composition for contains; (a) a nucleotide sequence encoding an o-catenin; and (b) can be used in the suppression of the o-catenin in a commandian cell. The pharmaceutical compositions have cytostatic activity and can be used for treating cancers associated with abnormally high activity levels of beta-catenin such as colon cancers and can be used in the suppression of beta-catenin such as colon cancers and can be used in the suppression of beta-catenin such as colon cancers and cancers and mammalian cells. The present sequence represents human VE-cadherin which is used in the exemplification of the present invention
                                                                                                                                                                                           Matches
                                                                                                                                                                                                           Query Match
Best Local
 ABU03507
                           ABU03507 standard; protein; 784 AA
                                                                                                                                                                                                                                                             Sequence 784
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New construct encoding soluble cytoplasmic portion of cadherin including beta catenin binding domain useful in treating cancer associated with high beta-catenin activity e.g. colon cancer and melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 3; Page 56-58; 102pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAY-1998;
26-MAY-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Geiger B,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (GEIG/) GEIGER B.
(BENZ/) BEN-ZE'EV A.
(SADO/) SADOT E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-JUL-2001; 2001US-00905983
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-APR-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        US2002045591-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           o-catenin; colon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cadherin; alpha-catenin; cancer; beta-catenin binding domain; melanoma;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human VE-cadherin protein SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-AUG-2002
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                                                                                                                      48
                                                                                                                                                                                         15;
                                                                                                                                                   1 DWIWNOMHIDEEKNT 15
                                                                                                                                                                                                          Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ben-Ze'ev
                                                                                                                                                                                      Conservative
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99US-00318633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer.
                                                                                                                                                                                                    100.0%; Score 92; DB 5; Length 784; 100.0%; Pred. No. 1e-05;
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                                                                                                                                                                                      Mismatches
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RESULT 10
ABU56570
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                                                                                                                                                                                                                                                                                                                                        The present invention relates to methods and compositions for detecting an angiogenesis-associated transcript in a cell in a patient. The method involves contacting a biological sample from the patient with a collynucleotide that selectively hybridises to a sequence at least 80% cidentical to any of the angiogenesis-associated human polynucleotide composition. These angiogenesis-associated compositions are comprise genes that exhibit changes in composition levels as a function of time in tissue undergoing angiogenesis. The method and the polynucleotide sequences of the composition are useful for diagnosing and treating angiogenesis and composition are useful for diagnosing and treating angiogenesis and composition are useful for diagnosing and treating angiogenesis and composition are useful in the gene therapy of such disorders. The angiogenesis-associated proteins encoded by the polynucleotide sequences are also useful in the gene therapy of such disorders. The angiogenesis-associated proteins encoded by the polynucleotide sequences are useful as a vaccine for therapeutic and prophylactic immunisation.
                                                                                                                                                                                                                                         Matches 15; Conser
                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-FEB-2001; 2001US-00784356.

22-FEB-2001; 2001US-00791390.

19-APR-2001; 2001US-0285475P.

03-AUG-2001; 2001US-0310025P.

13-NOV-2001; 2001US-0350666P.

29-NOV-2001; 2001US-0334244P.
                            02-APR-2003
                                                            ABU56570
                                                                                      ABU56570 standard; protein; 784 AA
                                                                                                                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Detecting angiogenesis-associated transcript in a cell for diagnosing and treating cancer by contacting a sample with a polynucleotide that exhibits changes in expression level as a function of time in tissue
                                                                                                                                                                                                                                                                                                                                     ABU03456-ABU03569
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 2; Page 230; 291pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              undergoing angiogenesis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N-PSDB; ABX08791.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2003-040681/03.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Murray R,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          14-FEB-2002; 2002WO-US004915
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; angiogenesis-associated transcript; angiogenesis; angiogenesis-associated disease; cancer; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-OCT-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Angiogenesis-associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21-JAN-2003
                                                                                                                                                                         48
                                                                                                                                                                                                                                        15;
                                                                                                                                                                                            1 DWIWNOMHIDEEKNT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EOS
                                                                                                                                                                       DWIWNOMHIDEEKNT
                                                                                                                                                                                                                                                                                                      784 AA;
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                                                                                                                                                                                                                                      Conservative
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                         (first entry)
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                                                                                                                                                                                                                                                                                                                                represent angiogenesis-associated protein sequences
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                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                 Score 92; DB 6; L
Pred. No. le-05;
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Lung cancer-associated polypeptide #163

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atelectasis;

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RESULT 11
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ID ADA03
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AC ADA03
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Best Local S
Matches 15
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention relates to a method for detecting a lung cancer-associated transcript in a cell from a patient, comprising contacting a biological sample from the patient with a polynucleotide that selectively hybridises to a sequence that is at least 80 % identical to a gene that exhibits increased or decreased expression in lung cancer samples. Lung cancer—associated polynucleotides and polypeptides are used for identifying a compound that modulates a lung cancer—associated polypeptide, for inhibiting proliferation of a lung cancer—associated polypeptide, for inhibiting proliferation of a lung cancer—associated cell to treat lung cancer in a patient and for treating a mammal having lung cancer by cancer in a patient and for treating a mammal having lung cancer by cancer in a patient and compound identified. The methods are useful administering a modulatory compound identified. The methods are useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Detecting a lung cancer-associated transcript in a cell from a patient for treating lung cancer, by contacting a biological sample from the patient with a polynucleotide that exhibits increased or decreased
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                                                                                                                                                                                                                                                                                                                                                for treating lung cancer, such as small cell lung cancer, non-small cell lung cancer or other benign or precancerous lesions, e.g. atelectasis, emphysema, bronchitis, chronic obstructive pulmonary disease, fibrosis, hypersensitivity pneumonitis, interstitial pulmonary fibrosis, asthma and bronchiectasis. The genes, polynucleotides and polypeptides are useful for diagnostic purposes and as targets for screening for therapeutic compounds that modulate lung cancer, such as antibodies. Sequences ABU56408-ABU56745 represent lung cancer-associated polypeptides of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB; ABX76299.
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13-NOV-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         expression in lung
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                        ADA03363
                                                            ADA03363 standard;
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                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                     784
                                                                                                                                                                                      DWIWNOMHIDEEKNT 15
                                                                                                                                                      DWIWNOMHIDEEKNT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-0290492P.

2001US-0339245P.

2001US-0350666P.

2001US-0334370P.

2002US-0372246P.
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ilarity 100.0%;
Conservative (
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                                                            protein;
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                                                                784
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Pred. No.
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le-05;
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RESULT 12
AAUU8778
ID AAUU87
AC AAUU8
AC VE-ca
CT VE-ca
CKW VE-ca
KW VE-ca
KW VE-ca
KW VE-ca
KW Parac
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to a DNA encoding an endostatin receptor protein (human vascular endothelial (VE) cadherin (I)) or its partial peptides or encoding a protein derived from (I) by addition, deletion or substitution of one or more amino acid residues and having similar binding activity to endostatin. The sequence can be used in the regulation of angiogenesis in the treatment and prevention of diseases associated with the formation of new blood vessels, including cancer, cancer proliferation, diabetic retinopathy and rheumatoid arthritis. This sequence corresponds to the VE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      endostatin receptor; angiogenesis inhibitor; human;
vascular endothelial cadherin; angiogenesis; blood vessel; cancer;
diabetic retinopathy; rheumatoid arthritis; receptor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Vascular endothelial cadherin is a receptor to endostatin for screening endostatin agonists and antagonists as angiogenesis inhibitors and remedies for cancer development and proliferation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cytostatic; antidiabetic; ophthalmological; antiarthritic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human vascular endothelial cadherin protein
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VB-cadherin, antibody binding peptide; angiogenesis; neoplastic disease; VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma; carcinoma; sarcoma; adenocarcinoma; adenocarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder; age-related muscular degeneration; tumour neovascularisation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 784 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 2; Page 44-47;
                                                                                                                                                                              VE-cadherin N-terminal domain 1 antibody binding peptide #2
                                                                                                                                                                                                                                                                                      AAU08778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cadherin protein which
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NEMOTO T.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                       standard; peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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Pred. No. 1e-05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           receptor
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RESULT 13
AAU08786
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                  retinopathy, retrolental fibroplasia or necroscally retrolental fibroplasia or necroscally retrolental fibroplasia or necroscally retrolental fibroplasia, sarcomas, adenocarcinomas, adenosas, adenomas, leukaemic tumours or lymphoid tumours). The composition or antibody is also useful for treating a cell proliferation disorders associated with vascularisation (e.g. blood vessel proliferation disorders, fibrotic disorders, angiogenesis, tumour growth, tumour metastasis, rheumatoid arthritis or age-related muscular degeneration). These may also be used for reducing or inhibiting tumour vasculature in a therapy, particularly for inhibiting angiogenesis or tumour therapy, particularly for inhibiting angiogenesis or tumour neovascularisation. This sequence represents a VE-cadherin N-terminal
            paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy;
                                                          VE-cadherin;
VE-cadherin r
                                                                                                             Murine
                                                                                                                                            27-FEB-2002
                                                                                                                                                                                                            AAU08786 standard;
        retrolental fibroplasia;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mediated adherens junction formation in vitro, but does not exert any significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a site on a VE-cadherin within the 15 N-terminal amino acids of domain 10 a VE-cadherin. The antibody or antibody fragment is useful for inhibiting antipogenesis (e.g. angiogenesis that is associated with a neoplastic disease, a solid tumour, an autoimmune disease, collagenous vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    specifically binding to a VE-cadherin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The method relates to an antibody or an antibody fragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 32; 44pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2001-656988/75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              31-MAR-2000; 2000US-00540967
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                                                                                                  VE-cadherin N-terminal domain 1 polypeptide
                                                                                                                                                                                                                                                                                                                                μ
                                                                                                                                                                                                                                                                                                                                                                   14;
                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                DWIWNQMHIDEEKN 14
                                                                                                                                                                                                                                                                                              DWIWNOMHIDEEKN 14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           a solid tumour, an autoimmune disease, collagenous vascular rheumatoid arthritis, an ophthalmological condition, diabetic thy, retrolental fibroplasia or neovascular glaucoma) or tumour
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hicklin DJ,
                                                          ; angiogenesis; neoplastic
mediated adherens junction
                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                  A
                                                                                                                                         (first entry)
                                                                                                                                                                                                          protein; 103 AA
                                                                                                                                                                                                                                                                                                                                                       94.6%; or
100.0%; Pr
                                                        adherens
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       neovascular
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Pred. No.
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                                                        junction
                                                                                                                                                                                                                                                                                                                                                          Mismatches
 glaucoma; tumour metastasis;
                                                                      disease;
                                                 formation; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                        DB 4; Le
7.7e-07;
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                                                                                                                                                                                                                                                                                                                                                                                        Length 15;
                                                                                                                                                                                                                                                                                                                                                          Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                capable of
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                                                                                                                                                                                                                                                                                                                                                     Gaps
glioma;
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disease, a solid tumour, an autoimmune disease, collagenous vascular disease, rheumatoid arthritis, an ophthalmological condition, diabetic retinopathy, retrolental fibroplasia or neovascular glaucoma) or tumour adenosarcomas (e.g. carcinomas, gliomas, Barcomas, adenocarcinomas, adenomas, leukaemic tumours or lymphoid tumours). The composition or antibody is also useful for treating a cell proliferation disorder associated with vascularisation (e.g. blood vessel proliferation disorders, fibrotic disorders, angiogenesis, tumour growth, tumour metastasis, rheumatoid arthritis or age-related muscular degeneration). These may also be used for reducing or inhibiting tumour vasculature in a
                                                                                                                                                                                                                                                                                                                             significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a site on a VB-cadherin within the 15 N-terminal amino acids of domain 1 of a VB-cadherin. The antibody or antibody fragment is useful for inhibiting angiogenesis (e.g. angiogenesis that is associated with a neoplastic
                                         mammal. The nucleic acid that encodes the antibody or is useful in therapy, particularly for inhibiting angiogenesis or tumour neovascularisation. This sequence represents a murine VE-cadherin N
                                       terminal domain
                                                                                                                                                                                                                                                                                                                                                                                                                                            The method relates to an antibody or an antibody fragment, capable of specifically binding to a VE-cadherin, and of inhibiting VE-cadherin mediated adherens junction formation in vitro, but does not exert any
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Example 2; Fig 2; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-656988/75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder; age-related muscular degeneration; tumour neovascularisation; mouse; VE-cadherin N-terminal domain 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Liao F,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-MAR-2000; 2000US-00540967
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                                    polypeptide
                                                    VE-cadherin N-
                                                                                            gene
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RESULT 14
AAU08777
ID AAU08
XX
AC AAU08
XC AAU08
XX
DT 27-FE
XX
DE VE-Ca
XX
VS-Ca
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                                                                                                                                                           Query Match
Best Local
                                                                  AAU08777 standard; peptide; 15
                                                                                                                                \vdash
                                                                                                                                                         Similarity
                                                                                                                               DWIWNOMHIDEEKN 14
                                                                                                              DWIWNOMHIDEEKN 14
                                                                                                                                                 Conservative
                                                                                                                                                         100.0%;
                                                                                                                                                                  94.6%;
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;
                                                                                                                                                        Score 87;
Pred. No.
                                                                                                                                                Mismatches
                                                                                                                                                       6.5e-06;
                                                                                                                                                                DB 4;
                                                                                                                                               0
                                                                                                                                                               Length 103;
                                                                                                                                             0;
                                                                                                                                             Gaps
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0

Sequence 103

AA;

VE-cadherin N-terminal domain 1 antibody binding peptide #1.

antibody binding peptide; angiogenesis; neoplastic disease;

27-FEB-2002

(first entry)

Novel

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VE-cadherin mediated adherens junction formation; autoimmune disease; paracellular permeability; solid tumour; collagenous vascular disease; rheumatoid arthritis; ophthalmological condition; diabetic retinopathy; retrolental fibroplasia; neovascular glaucoma; tumour metastasis; glioma carcinoma; sarcoma; adenocarcinoma; adenosarcoma; adenoma; gene therapy; leukaemic tumour; lymphoid tumours; cell proliferation disorder; vascularisation; blood vessel proliferation disorder; fibrotic disorder;
                                                                                                                                                                                                                                                                                                                                 The method relates to an antibody or an antibody fragment, capable of specifically binding to a VE-cadherin, and of inhibiting VE-cadherin mediated adherens junction formation in vitro, but does not exert any significant or substantial effect on paracellular permeability in vitro. The antibody or antibody fragment is capable of specifically binding to a site on a VE-cadherin within the 15 N-terminal amino acids of domain 1 of a VE-cadherin. The antibody or antibody fragment is useful for inhibiting angiogenesis (e.g. angiogenesis that is associated with a neoplastic disease, a solid tumour, an autoimmune disease, collagenous vascular disease, rheumatoid arthritis, an ophthalmological condition, diabetic disease, rheumatoid arthritis, an ophthalmological condition, diabetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            age-related
VE-cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New antibody antagonists of VE-cadherin, which does not adversely affect vascular permeability, useful for inhibiting angiogenesis or tumor metastasis, e.g. autoimmune disease, carcinomas or leukemic tumors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200175109-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia
                                                              retinopathy, retrolental fibroplasia or neovascular glaucoma) or tumour metastasis (e.g. carcinomas, gliomas, sarcomas, adenocarcinomas, adenocarcinomas, delenosarcomas, adenocarcinomas, adenocarcinomas, adenocarcinomas, adenocarcinomas, adenocarcinomas, leukaemic tumours or lymphoid tumours). The adenosarcomas, adenomas, leukaemic tumours or lymphoid tumours). The associated with vascularisation (e.g. blood vessel proliferation disorders, fibrotic disorders, angiogenesis, tumour growth, tumour metastasis, rheumatoid arthritis or age-related muscular degeneration). These may also be used for reducing or inhibiting tumour vasculature in a mammal. The mucleic acid that encodes the antibody or is useful in gene therapy, particularly for inhibiting angiogenesis or tumour neovascularisation. This sequence represents a VE-cadherin N-terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  31-MAR-2000; 2000US-00540967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-MAR-2001; 2001WO-US010505.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 32; 44pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-656988/75
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (IMCL-)
Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hicklin
                                               antibody binding peptide
     15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            muscular degeneration; tumour neovascularisation; N-terminal domain 1.
     AA;
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peripheral nervous system disease; neuropathy; haematopoiesis; bone; myeloid disorder; lymphoid cell disorder; platelet disorder; tendon; regeneration; cartilage; tendon; ligament; nerve tissue growth; tissue repair; wound healing; burn; ulcer; osteoporosis; cancer; osteoparthritis; bone degenerative disorder; periodontal disease; gut protection; lung fibrosis; liver fibrosis; reperfusion injury; put protection; intromboris; liver fibrosis; reperfusion injury; immune deficiency; infection; catching disorder; allergic reaction; thrombolysis; thrombosis; coagulation disorder; allergic reaction; biorhythm; circadian cycle; fertility; metabolism; catabolism; anabolism; nootropic; neuroprotective; antiparkinsonian; anticonvulsant; haemostatic; vulnerary; antiulcer; osteopathic; antiarthritic; antiparkinsonian; anticonvulsant; antiparkinsonian; anticonvulsant; immunosuppressive; vasotropic; immunostimulant; antiparkinsonian; university vulnerary.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; anglogenesis; cytokile; ter profile transplantation; bio-sensor; cell differentiation; totipotent; stem cell; transplantation; bio-sensor; neuroepithelial cell; autoimmune disease; neural cell; genetic disorder; nerve; brain tissue; central nervous system disease; nervosathy; haematopoiesis; bone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antirheumatic; antidiabetic; antiasthmatic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          human polypeptide #177.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 cell proliferation; pluripotent;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cytostatic; virucide.
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Homo sapiens

WO2003023013-A2

20-MAR-2003

13-SEP-2002; 2002WO-US029001.

13-SEP-2001; 2001US-0322511P-12-SEP-2002; 2002US-00243552

(HYSE-) HYSEQ INC

Tang YT, Yang Y, Wang Z, Weng Ģ MaΥ;

N-PSDB; 2003-313249/30. ACD05667

Novel nucleic acids and polypeptides for diagnosis, treatment of central and peripheral nervous system diseases and neuropathies, such as Alzheimer's, Parkinson's disease, Huntington's disease, amyotrophic sclerosis.

Claim 20; SEQ ID NO 513; 300pp; English.

development of bio-sensors. The polypeptides can be used to manipulate conserved to augment or properties to neuropalthelial cells that can be used to augment or replace cells damaged by illness, autoimmune disease, accidental damage or genetic disorders. The polypeptides induce the conserved are useful for the treatment of central and peripheral nervous system are useful for the treatment of central and peripheral nervous system considered are useful for the treatment of central and peripheral nervous system diseases and neuropathies, such as Alzheimer's, Parkinson's disease, endotrophic lateral selerosis (ALS). The polypeptides are also involved in chemotactic or chemokinetic activity, completely are also involved in chemotactic or chemokinetic activity, regulation of haematopoiesis and are useful for treating myeloid or constituted are useful for treating myeloid or constituted and constituted in the constituted as thrombocytopaenia and constituted in tissue repair, healing of burns, incisions, ulcers, for constituted disease. The polypeptides are also useful for gut protection periodontal disease. The polypeptides are also useful for gut protection constitution of treatment of lung or liver fibrosis, reperfusion including severe combined immunodeficiency (SCID), bacterial or fungal including severe combined immunodeficiency (SCID), bacterial or fungal including severe combined immunodeficiency (SCID), bacterial or fungal including severe combined immunodeficiency (SCID) activities and disorders. The present invention relates to the isolation of novel human polymucleotide sequences and their encoding polypeptides. The novel polypeptides exhibit activities relating to angiogenesis, cytokine, cell proliferation, cell differentiation, antiinflammatory, and stem cell growth factor activities. The polypeptides are involved in the proliferation, differentiation and survival of pluripotent and totipotent stem cells, and are useful for re-engineering damaged or diseased tissues, transplantation, manufacture of bio-pharmaceuticals and development of bio-sensors. The polypeptides can be used to manipulate development of bio-sensors. The polypeptides can be used to manipulate (e.g. multiple

ABO00590
ID ABOO
XX
AC ABOO
XX
DT 06-1

ABO00590 standard;

protein;

167 AA

06-AUG-2003 AB000590;

(first entry)

Дb 8

Matches Query Match

щ

DWIWNOMHIDEEKN 14 DEIWNOMHIDEEKN 14

Local

Similarity

79.3%; 92.9%;

Score 73; Pred. No. Mismatches

DB 4; 00012

Length 15

0;

Gaps

0;

Conservative

0

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CC arthritis, diabetes mellitus, myasthemia gravis), allergic reactions and CC conditions, such as asthma or other respiratory problems. The CC polypeptides are involved in thrombolysis or thrombosis and are useful in CC disorders such as haemophilia) or to enhance coagulation and other CC haemostatic events in treating wounds resulting from trauma, surgery or CC cher causes. The polypeptides exhibit immune stimulating or immune coagulation and other CC cancer. They also inhibit the growth, infection or function of infectious cycles of rhythms, fertility of male or female subjects, metabolism, and anabolism, ABOO414-ABOO749 represent the novel CC catabolism, and anabolism. ABOO414-ABOO749 represent the novel CC did not form part of the printed specification, but was obtained in CC did not form part of the printed specification, but was obtained in CC fip.wipo.int/pub/published_pot_sequences

SQ Sequence 167 AA;

Query Match 8; Conservative 2; Mismatches 4; Indels 0; Gaps 0;

WIWNNOPFVPEEMNT 15

Db 45 WVWNOPFVPEEMNT 58

Search completed: July 29, 2004, 11:34:54

Search completed: July 29, 2004, 11:34:54
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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB seq length: 2000000000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Scoring table:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.
                                                                                                                                                                                                                                                                                                                      Score
                   Published Applications AA:*

1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
2: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
5: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
6: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*
7: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
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9: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*
10: /cgn2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*
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11: /cgn2_6/ptodata/2/pubpaa/US00_NEW_PUB.pep:*
12: /cgn2_6/ptodata/2/pubpaa/US00_NEW_PUB.pep:*
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                       13 US-10-040-128-3
US-10-006-869-6
L5 US-10-395-03-6
9 US-09-905-983-52
12 US-10-211-462-195
14 US-10-014-677-23
13 US-10-040-128-2
13 US-10-040-128-2
13 US-10-040-128-2
13 US-10-040-128-3
US-10-243-552-596
US-09-978-295A-264
9 US-09-978-192A-264
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Sequence 3, Appli
Sequence 6, Appli
Sequence 6, Appli
Sequence 52, Appl
Sequence 99, Appl
Sequence 23, Appli
Sequence 2, Appli
Sequence 2, Appli
Sequence 264, App
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US-10-040-128-3

Sequence 3, Application US/10040128 Publication No. US20020160003A1 GENERAL INFORMATION:

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ALIGNMENTS

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RESULT 2
US-10-006-869-6
; Sequence 6, Application US/10006869
; Publication No. US20030082166A1
; GENERAL INFORMATION:
; APPLICANT: Blaschuk, Orest W.
                                                                                                                                                                      밁
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                                                                                                                                                                                                                                                                                                                         ; FEATURE:
; OTHER INFORMATION: synthetic peptide
US-10-040-128-3
                                                                                                                                                                                                                                                Best Loc
Matches
                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 3
LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Liao, Fang
APPLICANT: Hicklin, Daniel J.
APPLICANT: Hicklin, Daniel J.
APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects on TITLE OF INVENTION: Vascular Permeability
FILE REFERENCE: 11245/46976
CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
SOFTWARE: WordPerfect 8.0 for Windows
                                                                                                                                                                                                                                                                   Local
                                                                                                                                                                                     1 DWIWNOMHIDEEKNT 15
                                                                                                                                                                                                                                                l Similarity
15; Conserv
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                                                                                                                                                                                                                                   100.0%; Score 92; DB 13; Length 15; llarity 100.0%; Pred. No. 8e-07; Conservative 0; Mismatches 0; Indels
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; LENGTH: 108
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-006-869-6
                                                                                                                                                                                                US-09-905-983-52
, Sequence 52, Application US/09905983
, Patent No. US20020045591A1
, GENERAL INFORMATION:
, APPLICANT: Geiger, Benjamin
, APPLICANT: Ben-Ze'ev, Avri
, APPLICANT: Sadot, Einat
, TITLE OF INVENTION: METHODS AND THERAPEUTIC COMPOSITIONS FOR TREATING CANCER
, FILE REFERENCE: 01/2326
, FILE REFERENCE: 01/2326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US-10-395-032-6
; TYPE: PRT; ORGANISM: Homo sapiens US-09-905-983-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ; TYPE: PRT; ORGANISM: Homo sapiens US-10-395-032-6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 6, Application US/10395032 Publication No. US20030229199A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID NO 6
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TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
TILE REFERENCE: 100086.407C7
CURRENT APPLICATION NUMBER: US/10/006,869
CURRENT FILING DATE: 2001-12-03
NUMBER OF SEQ ID NOS: 4052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local Similarity
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                                                             SOFTWARE: PatentIn version 3.1
SEQ ID NO 52
LENGTH: 784
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Blaschuk, Orest W.
APPLICANT: Symonds, James Matthew
APPLICANT: Gour, Barbara J.
TITLE OF INVENTION: COMPOUNDS AND METHODS FOR MODULATING NONCLASSICAL
TITLE OF INVENTION: CADHERIN-MEDIATED FUNCTIONS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 100086.407C9
CURRENT APPLICATION NUMBER: US/10/395,032
CURRENT FILING DATE: 2003-03-21
NUMBER OF SEQ ID NOS: 4052
SOFTWARE: Patentin Ver. 2.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: PatentIn Ver. 2.0
                                                                                                                            CURRENT APPLICATION NUMBER: US/09/905,983
CURRENT FILING DATE: 2001-09-28
NUMBER OF SEQ ID NOS: 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ENGTH: 108
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Local Similarity 100.0%; Pred. No. 5.2e-06;
hes 15; Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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100.0%; Pred. No. 5.2e-06;
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CURRENT FILING DATE: 2003-02-13
PRIOR APPLICATION NUMBER: US 09/784,356
PRIOR FILING DATE: 2001-02-14
PRIOR APPLICATION NUMBER: US 09/791,390
PRIOR FILING DATE: 2001-02-22
PRIOR APPLICATION NUMBER: US 60/310,025
PRIOR APPLICATION NUMBER: US 60/310,025
PRIOR APPLICATION NUMBER: US 60/334,244
PRIOR APPLICATION NUMBER: US 60/334,244
PRIOR FILING DATE: 2001-01-29
NUMBER OF SEQ ID NOS: 230
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Best Local Similarity
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Best Local
NUMBER OF SEQ ID NOS: 135
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 99
LENGTH: 784
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APPLICANT: Glynne, Richard
APPLICANT: Watson, Susan I
                                                                                      APPLICANT: Mulray, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Glynne, Richard
APPLICANT: Watson, Susan R.
APPLICANT: EOS Biotechnology, Inc.
APPLICANT: EOS Biotechnology, Inc.
APPLICANT: EOS Biotechnology, Inc.
APPLICANT: EOS Biotechnology, Inc.
APPLICANTO: No. US20030152926Alel Methods of Diagnosis of Angiogenesis
TITLE OF INVENTION: Modulators
TITLE OF INVENTION: Modulators
TITLE OF INVENTION: Modulators
TITLE OF INVENTION: Modulators
CURRENT APPLICATION NUMBER: US/00/104,660
CURRENT APPLICATION NUMBER: US/09/784,356
PRIOR APPLICATION NUMBER: US/09/784,356
PRIOR APPLICATION NUMBER: US/09/637,977
PRIOR FILING DATE: 2000-08-11
PRIOR FILING DATE: 2000-08-11
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TITLE OF INVENTION: Methods of Diagnosis of Angiogenesis, Composition:
TITLE OF INVENTION: Methods of Screening for Angiogenesis Modulators
FILE REFERENCE: 018501-006200US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ORGANISM: Homo sapiens
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Watson, Susan R.
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o. US20040033495A1
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RESULT 9
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; OTHER INFORMATION: synthetic peptide
US-10-040-128-2
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US-10-174-677-23
; Sequence 23, Application US/10174677
; Publication No. US20030190704A1
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SEQ ID NO 2
LENGTH: 15
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                          Matches
                                                                                                                    Query Match
Best Local Similarity
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SOFTWARE: Patentin version 3.1
SEQ ID NO 23
LENGTH: 784
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                APPLICANT: Liao, Fang
APPLICANT: Liao, Fang
APPLICANT: Hicklin, Daniel J.
APPLICANT: Hicklin, Daniel J.
APPLICANT: Hicklin, Daniel J.
APPLICANT: Boblen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects on TITLE OF INVENTION: Vascular Permeability
FILE REFERENCE: 11245/46976
CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
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APPLICANT: Xie, Ting
APPLICANT: Xie, Ting
TITLE OF INVENTION: METHODS AND COMPOSITIONS FOR ANCHORING STEM CELLS IN A MICROENVIR
FILE REFERENCE: 40716(IP-012)
CURRENT APPLICATION NUMBER: US/10/174,677
CURRENT FILING DATE: 2002-06-19
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Best Local :
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                                                                      DWIWNQMHIDEEKN 14
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Pred. No. 3.5e-05;
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Pred. No. 3.5e-05;
; Mismatches 0;
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                                                                                                                   4.3e-06;
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                                   PRIOR APPLICATION NUMBER: PCT/US01/04927
PRIOR FILING DATE: 2001-02-26
Remaining Prior Application data removed
NUMBER OF SEQ ID NOS: 998
SOFTWARE: pt FL genes Version 5.0
SEQ ID NO 596
LENGTH: 167
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Best Local Sim
Matches 13;
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                                                                                                                                                                                       PRIOR FILING DATE: 2000-01-25
PRIOR APPLICATION NUMBER: PCT/US01/03800
PRIOR FILING DATE: 2001-02-05
PRIOR APPLICATION NUMBER: US 09/496,914
PRIOR FILING DATE: 2000-02-03
PRIOR PRIOR PRIOR PRIOR DATE: 2000-04-27
PRIOR FILING DATE: 2000-04-27
                                                                                                                                                                                                                                                                                                                                    PRIOR APPLICATION NUMBER: PCT/US01/02623
PRIOR FILING DATE: 2001-01-25
PRIOR APPLICATION NUMBER: US 09/491,404
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Novel Nucleic Acids and TITLE OF INVENTION: Polypeptides
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APPLICANT: Hicklin, Daniel J.
APPLICANT: Bohlen, Peter
TITLE OF INVENTION: Antibody Antagonists of VE-Cadherin Without Adverse Effects on TITLE OF INVENTION: Vascular Permeability
FILE REFERENCE: 11245/46976
CURRENT APPLICATION NUMBER: US/10/040,128
CURRENT FILING DATE: 2001-03-30
NUMBER OF SEQ ID NOS: 6
SOFTWARE: WordPerfect 8.0 for Windows
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT FILING DATE: 2002-09-12
PRIOR APPLICATION NUMBER: US 60/322,511
PRIOR FILING DATE: 2001-09-13
PRIOR APPLICATION NUMBER: PCT/US00/35017
PRIOR FILING DATE: 2000-12-22
PRIOR PRIOR FILING DATE: 2000-12-22
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PRIOR FILING DATE: 2000-01-21
PRIOR APPLICATION NUMBER: US 09/552,317
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CURRENT APPLICATION NUMBER: US/10/243,552
CURRENT FILING DATE: 2002-09-12
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ORGANISM: Homo
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Wang, Zhiwei
Weng, Gezhi
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Pred. No. 0.00049;
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                                                                                                                    See File Wrapper or PALM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 15
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US-09-978-295A-264
                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/978,295A
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: 09/918585
PRIOR FILING DATE: 2001-07-30
PRIOR EILING DATE: 1997-10-17
PRIOR FILING DATE: 1997-11-03
PRIOR PPLICATION NUMBER: 60/064249
PRIOR PPLICATION NUMBER: 60/065311
PRIOR PPLICATION NUMBER: 60/065311
PRIOR PILING DATE: 1997-11-13
PRIOR PRIOR DATE: 1997-11-13
PRIOR APPLICATION NUMBER: 60/066364
PRIOR APPLICATION NUMBER: 60/066364
PRIOR APPLICATION NUMBER: 60/066364
PRIOR APPLICATION NUMBER: 60/066364
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PRIOR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Wood, William I.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic TITLE OF INVENTION: Acids Encoding the Same
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
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DR FILING DATE: 1998-03-12
DR APPLICATION NUMBER: 60/078004
DR FILING DATE: 1998-03-13
DR APPLICATION NUMBER: 60/078886
DR FILING DATE: 1998-03-20
DR APPLICATION NUMBER: 60/078936
                                                                                                             APPLICATION NUMBER: 60/077649
FILING DATE: 1998-03-11
APPLICATION NUMBER: 60/077791
                                                                                                                                                                                                                 APPLICATION NUMBER: 60/077632
FILING DATE: 1998-03-11
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APPLICATION NUMBER: 60/077450
FILING DATE: 1998-03-10
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8; Conser
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Baker Kevin P
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Hillan, Kenneth
Kljavin, Ivar J.
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Roy, Margaret Ann
Shelton, David L.
Stewart, Timothy A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  rao, Wei-Qiang
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gerritsen, Mary E. Goddard, Audrey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Filvaroff, Ellen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Baker Kevin P.
Botstein, David
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tumas, Daniel
Williams, P. Mickey
Wood, William I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Grimaldi,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Godowski, Paul J.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Gerber, Hanspeter
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Napier,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               James
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Austin L.
Kenneth J
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57.1%;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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DR APPLICATION NUMBER: 60/080105
DR FILING DATE: 1998-03-31
DR APPLICATION NUMBER: 60/080107
DR FILING DATE: 1998-03-31
DR APPLICATION NUMBER: 60/080165
DR APPLICATION NUMBER: 60/080165
DR FILING DATE: 1998-03-31
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APPLICATION NUMBER: 60/
FILING DATE: 1998-03-20
APPLICATION NUMBER: 60/
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FILING DATE: 1998-03-27
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APPLICATION NUMBER: 60/079663
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APPLICATION NUMBER: 60/079664
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FILING DATE: 1998-03-31
APPLICATION NUMBER: 60/080327
FILING DATE: 1998-04-01
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FILING DATE: 1998-04-01
APPLICATION NUMBER: 60/080333
FILING DATE: 1998-04-01
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APPLICATION NUMBER: 60/080334
FILING DATE: 1998-04-01
APPLICATION NUMBER: 60/081070
FILING DATE: 1998-04-08
FILING DATE: 1998-04-08
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              R FILING DATE:
R APPLICATION N
R FILING DATE:
                                                                                                                                                                                                                                                                  APPLICATION NUMBER: 60/081819
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081952
FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081838
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APPLICATION NUMBER: 60/081071
FILING DATE: 1998-04-08
APPLICATION NUMBER: 60/081195
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APPLICATION NUMBER: 60/082568
FILING DATE: 1998-04-21
APPLICATION NUMBER: 60/082569
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FILING DATE: 1998-04-15
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APPLICATION NUMBER: 60/081203
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                                                                       FILING DATE: 1998-04-22
APPLICATION NUMBER: 60/082804
FILING DATE: 1998-04-22
APPLICATION NUMBER: 60/082700
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                                    : 1998-04-22
NUMBER: 60/082797
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APPLICATION N FILING DATE: APPLICATION N FILING DATE:

NUMBER:

FILING DATE: APPLICATION I

NUMBER: 60/083496

1998-04-29

APPLICATION NUMBER: 60/083392 FILING DATE: 1998-04-29 APPLICATION NUMBER: 60/083495

APPLICATION NUMBER: 60/083322 FILING DATE: 1998-04-28

1998-04-23 NUMBER: 60/ 1998-04-27

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Best Local
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R FILING DATE: 1998-05-13

DR APPLICATION NUMBER: 60/085338

DR FILING DATE: 1998-05-13

DR APPLICATION NUMBER: 60/085323

DR FILING DATE: 1998-05-13
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R ETLING DATE: 1998-05
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                                                                                                APPLICATION NUMBER: 60/085704
FILING DATE: 1998-05-15
APPLICATION NUMBER: 60/085697
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FILING DATE: 1998-05-15
APPLICATION NUMBER: 60/085573
FILING DATE: 1998-05-15
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APPLICATION NUMBER: 60/084643
FILING DATE: 1998-05-07
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APPLICATION NUMBER: 60/084627
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APPLICATION NUMBER: 60/084414
FILLING DATE: 1998-05-06
APPLICATION NUMBER: 60/084441
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FILING DATE: 1998-04-29
APPLICATION NUMBER: 60/083554
FILING DATE: 1998-04-29
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APPLICATION NUMBER: 60/084637
FILING DATE: 1998-05-07
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FILING DATE: 1998-04-29
APPLICATION NUMBER: 60/083559
FILING DATE: 1998-04-29
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APPLICATION NUMBER:
FILING DATE: 1998-0.
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WIWNQMHIDEEKNT
                               Conservative
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                               2;
                                           Score 57;
Pred. No.
                             Pred. No. 4.6
2; Mismatches
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4.6;
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                            Indels
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APPLICANT: Wood, William I.
TITLE OF INVENTION: Secreted and Transmembra
TITLE OF INVENTION: Acids Encoding the Same
FILE REFERENCE: P2630FLC27
CURRENT FILING DATE: 2001-10-16
PRIOR APPLICATION NUMBER: 09/918/697
CURRENT FILING DATE: 2001-07-30
PRIOR FILING DATE: 2001-07-30
PRIOR APPLICATION NUMBER: 60/062250
PRIOR FILING DATE: 1997-10-17
PRIOR APPLICATION NUMBER: 60/065311
PRIOR FILING DATE: 1997-11-03
PRIOR APPLICATION NUMBER: 60/065311
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PRIOR APPLICATION NUMBER: 60/07763
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Stewart, Timothy A.
Tumas, Daniel
Williams, P. Mickey
Wood, William I.
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Shelton,
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Baker Kevin P.
Botstein, David
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Kuo, Sophia S.
Napier, Mary A.
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Gerritsen, Mary E
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Hillan, Kenneth
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ton, David L.
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RESULT 13 US-09-978-192A-264 ; Sequence 264, Application US/09978192A

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FILING DATE: 1998-04-15

APPLICATION NUMBER: 60/081229 FILING DATE: 1998-04-09 APPLICATION NUMBER: 60/081955

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                                                                                 Score 57; DB Pred. No. 4.6; 2; Mismatches
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APPLICANT: Shelton, David L.
APPLICANT: Shelton, David L.
APPLICANT: Stewart, Timothy A.
APPLICANT: Tumas, Daniel
APPLICANT: Williams, P. Mickey
APPLICANT: Wood, William I.
TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
TITLE OF INVENTION: Acids Encoding the Same
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Grimaldi, J. Christopher
Gurney, Austin L.
Kenneth J
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Botstein, David
Desnoyers, Luc
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Goddard, Audrey
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Filvaroff, Ellen
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Sophia S.
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, Hanspeter
Mary E.
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PRIOR APPLICATION NUMBER: 60/08107
PRIOR APPLICATION NUMBER: 60/080107
PRIOR APPLICATION NUMBER: 60/080165
PRIOR APPLICATION NUMBER: 60/080194
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DR FILING DATE: 1998-03-27 APPLICATION NUMBER: FILING DATE: 1998-04 APPLICATION NUMBER: 60/082797 FILING DATE: 1998-04-22 APPLICATION NUMBER: 60/082796 APPLICATION NUMBER: 60/081952 FILING DATE: 1998-04-15 APPLICATION NUMBER: 60/081838 FILING DATE: 1998-04-22 APPLICATION NUMBER: 60/082700 FILING DATE: 1998-04-22 FILING DATE: 1998-04-15
APPLICATION NUMBER: 60/081819
FILING DATE: 1998-04-15 APPLICATION NUMBER: FILING DATE: 1998-0 APPLICATION NUMBER: APPLICATION NUMBER: FILING DATE: 1998-04 FILING DATE: APPLICATION NUMBER: FILING DATE: 1998-04-15 APPLICATION NUMBER: 60/079923 FILING DATE: 1998-03-30 APPLICATION NUMBER: 60/080105 FILING DATE: 1998-03-31 APPLICATION NUMBER: 60/079920 FILING DATE: 1998-03-30 1998-04-27 1998-04-23 1998-04-22 1998-04-21 1998-04-21 1998-04-15 1998-03-30 60/083336 60/082804 60/082704 60/082569 60/082568 60/079786 60/079728

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Sequence 264, Application US, Publication No. US2002019270; GENERAL INFORMATION:
APPLICANT: Ashkenazi, Avi AppliCANT: Baker Kevin P. APPLICANT: Botstein, David; APPLICANT: Desnoyers, Luc
                                                                                                                                        RESULT 14
US-09-999-832A-264
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APPLICATION NUMBER: 60/083559
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APPLICATION NUMBER: 60/083742
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APPLICATION NUMBER: 60/083558
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FILING DATE: 1998-05-13
APPLICATION NUMBER: 60/085582
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APPLICATION NUMBER: 60/084627
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FILING DATE: 1998-05-07
APPLICATION NUMBER: 60/084600
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FILING DATE: 1998-05-07
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APPLICATION NUMBER: 60/084637
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FILING DATE: 1998-05-15
APPLICATION NUMBER: 60/085697
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Eaton, Dan
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Desnoyers, Luc
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                                                                                                                                                                                                                                                                                                    Score 57;
Pred. No.
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CURRENT FILING DATE: 2001-10-24
PRIOR APPLICATION NUMBER: 09/91858
PRIOR PILING DATE: 2001-07-30
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APPLICANT: Wood, William I.
TITLE OF INVENTION: Secreted and Transme
TITLE OF INVENTION: Acids Encoding the
FILE REFERENCE: P2630P1C63
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OR FILING DATE: 1998-03-10
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FILING DATE: 1998-03-13
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Shelton, David L.
Stewart, Timothy A.
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Hillan, Kenneth J
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Grimaldi, J. Christopher
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Williams, P. Mickey
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ton, David L.
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R FILING DATE: 1998-04-29

R APPLICATION NUMBER: 60/083495

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OR APPLICATION NUMBER: 60/082797
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OR FILING DATE: 1998-04-01
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Gao, Wei-Qiang
Gerber, Hanspeter
Gerritsen, Mary E.
Goddard, Audrey
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Filvaroff, J
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Desnoyers, Luc
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f, Ellen
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TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and TITLE OF INVENTION: Acids Encoding the Same FILE REFERENCE: P2630P1C7
CURRENT APPLICATION UNMBER: US/09/978,189
CURRENT FILING DATE: 2001-10-15
PRIOR APPLICATION NUMBER: 09/918585
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PRIOR APPLICATION NUMBER: 09/062250
PRIOR PILING DATE: 1997-10-17
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OR FILING DATE: 1998-03-11
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Roy, Margaret Ann
Shelton, David L.
Stewart, Timothy A.
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Wood, William
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Hillan, Kenneth
Kljavin, Ivar J.
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ms, P. Mickey
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1, J. Christopher
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PRIOR OR FILING DATE: 1998-04-08
OR APPLICATION NUMBER: 60/081203
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DR APPLICATION NUMBER: 60/083742

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DR FILING DATE: 1998-04-30

DR APPLICATION NUMBER: 60/084366

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DR FILING DATE: 1998-05-05 PR FILING DATE: 1998-04-29
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Copyright (c) 1993 - 2004 Compugen Ltd.
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P55287 homo sapien
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                                                                                                                                                                                                                                                                                                                                                                                                           Cell adhesion; Glycoprotein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR002126; Cadherin_C_term.
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                                                                                                                                                                                                                                                                                                                                                                             PROPEP
                                                                                                                                                                                                                                                                        DOMAIN
         CDH5
                  Vascular endothelial-cadherin precursor (VE-cadherin)
Sus scrofa (Pig)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. SUBCELLULAR LOCATION: Type I membrane protein.
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P15116; 11
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CADHERIN_2; 5.
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                      (Cadherin-5).
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RESULT 3
CAD5_HUMAN
ID CAD5_H
AC P33151
DT 01-OCT

CAD5 HUMAN P33151; 01-OCT-1993

(Rel. 27, Created)

STANDARD;

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In FUNCTION: Cadherins are calcium dependent cell adhesion proteins in the preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton (By similarity).
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Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -i- SUBCELLULAR LOCATION: Type I membrane protein. For boundaries and probably at cell-matrix boundaries -i- SIMILARITY: Contains 5 cadherin domains.
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HSSP; P09803; 1EDH.
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CARBOHYD
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InterPro; IPR002123; Cadherin_C_term
pfam; PF00028; cadherin; 5.
pfam; PF01049; Cadherin_C_term; 1.
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DWIWNOMHIDEEKN
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CYTOPLASMIC
CADHERIN 1.
CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
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N-LINKED
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SER-RICH.
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Pred. No.
                                                                                                                                                                      N-LINKED (GLCNAC:
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                                                                                       Mismatches
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(POTENTIAL).
(POTENTIAL).
(POTENTIAL).
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J. Cell Hol. 118:151-1522(1992).

J. Cell Hol. 118:151-1522(1992).

-!- FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. Subcellular Location: Type I membrane protein. Found at cell-cell boundaries and probably at cell-matrix boundaries.
-!- SIMCHLURAR LOCATION: Type I membrane protein. Found at cell-cell TISSUE SPECIFICITY: Endothelial tissues and brain.
-!- SIMILARITY: Contains 5 cadherin domains.
-!- DATABASE: NAME=PROW; NOTE=CD guide CD144 entry;

WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd144.htm".
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Houen G., Ruco L.P., Dejana E.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Suzuki S., Sano K., Tanihara H.; "Diversity of the cadherin family: evidence in nervous tissue.";
                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=92394977; PubMed=1522121;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE=Endothelial cells;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MEDLINE=91283540; PubMed=2059658;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=97362755; PubMed=9219219; Ali J., Liao F., Martens E., Muller W.A.; "Vascular endothelial cadherin (VE-cadherin): endothelial cell-cell adhesion.";
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          classic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Breviario F., Caveda I., Corada M., Martin-Padura I., Navela J., Introna M., Gulino D., Lampugnani M.G., Dejana "Functional properties of human vectular endothelial cadi (784/cadherin-5), an endothelium-specific cadherin ", Arterioscler. Thromb. Vasc. Biol. 15:1229-1239(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  heterophilic interactions between
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Shimoyama Y.,
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MEDLINE=95353875; PubMed=7627717;
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Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-OCT-2001 (Rel.
15-MAR-2004 (Rel.
                             ween the Swiss Institute of Bioinformatics and the European Bioinformatics Institute. There are no rest by non-profit institutions as long as its content if ied and this statement is not removed. Usage by an institution of the content in the content is not removed.
                                                                                                                                                                                                                                                                                                                                                                                        novel
                                                                                  SWISS-PROT entry is copyright. It is produced through a centre the Swiss Institute of Bioinformatics and the EMBL
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                                                                                                                                                                                                                                                                                                                                                     contacts.";
iol. 118:1511-1522(1992).
      equires a license agreement (S email to license@isb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Tsujimoto G., Kitajima M., Natori M.; on of three human type-II classic cadherins and frequent interactions between different subclasses of type-II
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Last annotation update)
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                    (See http://www.isb-sib.
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; Homo.
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                                                      Cadherin-19 precursor (UNQ478/I
CDH19 OR CDH7L2.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata; C
Mammalia; Eutheria; Primates; C
NCBI TaxID=9606;
                                                                                                  28-FEB-2003
28-FEB-2003
15-MAR-2004
Cadherin-19 I
  SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
MEDLINE=20453188; PubMed=10995570;
Kools P., Van Imschoot G., van Roy F.;
"Characterization of three novel human cadherin genes"
"Characterization of chromosome 18q22-q23 and with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; X79981; CAAS6306.1; -.
EMBL; U84722; AAB41796.1; -.
EMBL; AB035304; BAA87418.1; -.
EMBL; X59796; CAA42468.1; -.
PIR; S49893; IJHUCS.
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Q9H159;
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GO; GO:0005624; C:membrane fraction; TAS.
GO; GO:0005886; C:plasma membrane; TAS.
GO; GO:0007156; P:homophilic cell adhesion; TAS.
InterPro; IPR000218; Cadherin.
InterPro; IPR000233; Cadherin.C_term.
Pfam; PF00028; Cadherin; 5.
Pfam; PF01049; Cadherin, C_term; 1.
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GlycoSuiteDB; P33151; -.
Genew; HGNC:1764; CDH5.
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SM00112; CA;
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clustered on chromosome
cadherin-7.";
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ursor (UNQ478/PRO941).
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                                                                Catarrhini;
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SER-RICH.
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InterPro; IPR00223; Cadherin_C_term.
Pfam; PF00028; cadherin_C_term; 1.
Pfam; PF01049; Cadherin_C_term; 1.
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                                                                                                       LT 5
HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       prosite; ps00232; CADHERIN 1; 2:
prosite; ps50268; CADHERIN 2; 5:
Cell adhesion; Glycoprotein; Tra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SMART;
                                                      P55286; Q9ULB2; 01-OCT-1996 (Re
                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                         CADS HUMAN
   Cadherin-8
                  16-OCT-2001 (Rel. 40, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       send
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types.
SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Expressed in many tissues, with the exception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GO:0016021; C:integral to
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FUNCTION: Cadherins ar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SIMILARITY: Contains 5 cadherin domains.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SWISS-PROT entry is copyright. It is produced through a centre the Swiss Institute of Bioinformatics and the EMBL
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AY358654; AAQ89017.1; -...
P15116; INCJ.
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   precursor.
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Pred. No.
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ced. No. 1.6;
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Tanihara H., Sano K., Heimark R.L., St John T., Suzuki S.; "Cloning of five human cadherins clarifies characteristic features cadherin extracellular domain and provides further evidence for two structurally different types of cadherin."; cell Adhes. Commun. 2:15-26(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Shimoyama Y., Tsujimoto G., Kitajima M., Natori M.; "Identification of three human type-II classic cadherins and frequent heterophilic interactions between different subclasses of type-II classic cadherins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDH8.
Homo sapiens (Human)
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                                                                                                                                                                                                                                                                               This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=91283540; PubMed=2059658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=95073006; PubMed=7982033;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Biochem.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=10861224;
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HSSP; P15116;
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                                                                                                                    PROSITE; PS00232; CADHERIN_1; PROSITE; PS50268; CADHERIN_2;
                                                                                                                                                    PRINTS;
                                                                                                                                                             Pfam; PF00028; cadherin; Pfam; PF01049; Cadherin_C
                                                                                                                                                                                 InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term
                                                                                                                                                                                                         GO; GO:0007155; P:cell adhesion; TAS
                                                                 CHAIN
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                                                                                                                                                    PR00205;
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                                     (POTENTIAL).
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RESULT 6
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                                       PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN 2; 5.
Cell adhesion; Glycoprotein; Tra
                                                                          Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin C te
PRINTS; PR00205; CADHERIN.
SMART; SM00112; CA; 5.
                                                                                                                MGD; MGI:107434; Cdh8.
InterPro; IPR002126; Cadherin.
InterPro; IPR00233; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P97291;
15-JUL-1998 (
15-JUL-1998 (
16-OCT-2001 (
                                                                                                                                                                                                                                                                                                     Korematsu K., Redies C.;

"Restricted expression of cadherin-8 in segmental and functional subdivisions of the embryonic mouse brain.";

Dev. Dyn. 208:178-189(1997).

-!- FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the
                                                                                                                                                       EMBL; X95600; CAA64857.1;
HSSP; P15116; INCJ.
                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=Swiss Webster / NIH;
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Mammalia; Eutheria;
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CONFLICT
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SUBCELLULAR LOCATION: Type I membrane protein.
SIMILARITY: Contains 5 cadherin domains.
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(Rel. 36, Last sequence update)
(Rel. 40, Last annotation updat
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        POTENTIAL.
                                         Transmembrane;
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Pred. No. 4.9;
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Sciurognathi; Muridae; Murinae; Mus
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9B119B86039C6A0A CRC64;
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-> D (IN REF. 2 AND 3)
-> HQ (IN REF. 2 AND 3
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   (See http://www.isb-sib.ch/announce/
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                                      Calcium-binding;
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Pfam; Pfam;

PF00028; cadherin; 5. PF01049; Cadherin C to

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Cadherin. Cadherin_C_term.

PR00205;

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RESULT 7
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                                                                    EMBL; AB010437; BAA24.
HSSP; P15116; 1NCJ.
InterPro; IPR002126; (IRCO)
InterPro; IPR00233; (IRCO)
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                                                                                                                                                  EMBL; AB010436; BAA24452.1; -. EMBL; AB010437; BAA24453.1; -.
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Genomics 48:186-194(1998).
-!- FUNCTION: Cadherins are calcium dependent cell adhesion proteins.
They preferentially interact with themselves in a homophilic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                      IsoId=054800-2; Sequence=VSP_000638,
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rattus norvegicus (Rat).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TRANSMEM
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         manner in connecting cells; cadherins may thus sorting of heterogeneous cell types. SUBCELLULAR LOCATION: Type I membrane protein. ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Event=Alternative splicing; Named isoforms=2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       .:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            IsoId=054800-1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity 7; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Obata S., Tan
S., Suzuki S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MVWNOMFVLEE
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Rodentia;
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LAMBERIN 2.
CADHERIN 3.
CADHERIN 4.
CADHERIN 4.
CADHERIN 5.
N-LINKED (GLCNAC. . .)
V-LINKED (GLCNAC. . .) (PC
TNKED (GLCNA
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Pred. No.
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CADHERIN 2.
CADHERIN 3.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   POTENTIAL
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                                                                                                                                                                                                                                                      (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              update)
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1.9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Seldin
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RESULT
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RA Kunst F. Ogsawara N., Moser I., Albertini A.M., Alloni G., RA Azevedo V., Bertero M.G., Bessieres P., Bolotin A., Borchert S., RA Borriss R., Boursier L., Brans A., Braun M., Brignell S.C., Bros. R., Bruschi C.V., Caldwell B., Capuano V., Carter N.M., RA Brouillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M., RA Brouillet S., Bruschi C.V., Caldwell B., Capuano V., Carter N.M., RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A., RA Choi S.K., Codani J.J., Connerton I.F., Cummings N.J., Daniel R.A., RA Choi S.K., Codani J.J., Connerton I.F., Enrilch S.D., Emmerson P.T., RA Pritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N., RA Fritz C., Fujita M., Fujita Y., Fuma S., Galizzi A., Galleron N., RA Guiseppi G., Guy B.J., Haga K., Halech J., Harwood C.R., Henaut A., Ra Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L., RA Hilbert H., Holsappel S., Hosono S., Hullo M.F., Itaya M., Jones L., RA Kobayashi Y., Koetter P., Koningstein G., Krogh S., Kumano M., RA Kobayashi Y., Koetter P., Koningstein G., Krogh S., Kumano M., RA Kurita K., Lapidus A., Lardinois S., Lauber J., Lazarevic V., RA Kurita K., Levine A., Liu H., Masuda S., Mauel C., Medigue C., RA Medina N., Mellado R.P., Mizuno M., Mosetl D., Nakai S., Noback M., RA Moone D., O'Reilly M., Ogawa K., Ogiwara A., Oudega B., Park S.H., RA Parso V., Pohl T.M., Portetelle D., Porwollik S., Prescott A.M., RA Presecan E., Pujic P., Purnelle B., Rapoport G., Rey M., Reynolds S., Ra Rater M., Kivolta C., Rocha E., Roche B., Rose M., Sadaie Y., Ra Sato T., Scanlan E., Schleich S., Schroeter R., Scoffone F.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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16-OCT-2001 (Rel. 4
16-OCT-2001 (Rel. 4
10-OCT-2003 (Rel. 4
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PROSITE; PS00232; CADHERIN_1; 3.

PROSITE; PS50268; CADHERIN_2; 5.
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CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                   Bacillus subtilis.
                                                                                                                                                                                                                                                                                                                                                                                                                             Hypothetical
                                                                                                                                                                                                                                                                                                              MEDLINE=98044033;
                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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CADHERIN 5.

"LINKED (GLCNAC. . .) (POTENTIAL).

N-LINKED (GLCNAC. . .) (POTENTIAL).

IQTYSAMDKDDPKNGHFFL -> NISMLLILNMFVYNCFLV
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CADHERIN
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Pred. No. 4.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         388 AA
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sekiguchi J., Sekowska A., Seror S.J., Serror P., Shin B.S., Soldo B., Sorokin A., Tacconi E., Takagi T., Takahashi H., Takemaru K., Takeuchi M., Tamakoshi A., Tanaka T., Terpstra P., Tognoni A., Tosato V., Uchiyama S., Vandenbol M., Vannier F., Vassarotti A., Vistari A., Wambutt R., Wedler E., Wedler H., Weitzenegger T., Yata K., Winters P., Wipat A., Yamamoto H., Yamane K., Yasumoto K., Yata K., Yoshida K., Yoshikawa H.F., Zumstein E., Yoshikawa H., Danchin A.; "The complete genome sequence of the Gram-positive bacterium Bacillus subtilis.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 390:249-256(1997).
-!- SUBCELLULAR LOCATION: Integral membrane protein (Potential).
-!- SIMILARITY: BELONGS TO THE UPF0118 (PERM) FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TRANSMEM TRANSMEM
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TRANSMEM
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STRAIN-White leghorn;

Wei J. Dong X.R., Topouzis S., Zimmer W.E., Broders F., Thiery J.P.,

Koteliansky V., Majesky M.W.;

Koteliansky V., Majesky M.W.;

Molecular cloning of chick cadherin 11 and its expression during

"Molecular cloning of chick cadherin 12 and its expression during

"Molecular cloning of chick cadherin 13 and its expression during

"Molecular cloning of the EMBL/GenBank/DDBJ databases.";

Submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: Cadherins are calcium dependent cell adhesion proteins.

-I- FUNCTION: Cadherins are calcium dependent cell adhesion proteins.

manner in connecting cells; cadherins may thus contribute to the

sorting of heterogeneous cell types.

sorting of heterogeneous cell types.
                                                                                                                                                                                                                                                                                                                                       093319;
16-0CT-2001
                                                                                                                                                                                                                                                                                                                                                                                     CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro;
                                                                                                                                                                                                                                                                                                           16-OCT-2001
16-OCT-2001
                                                                                                                                                                                                                                                                                                                                                                       CADB
                                                                                                                                                                                                                               Eukaryota; Metazoa; Choruaca; varrhosauria; Aves; Neognathae;
                                                                                                                                                                                                                                                             Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                           Cadherin-11
                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                               NCBI_TaxID=9031;
                                                                                                                                                                                                                                                                                                                                                                       CHICK
                                                                                                                                                                                                                                                                                                                                                                                                                                              366
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IPR002549;
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20 47
47 106
175 195
237 257
262 287
286 300
331 35:
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(Rel. 40,
(Rel. 40,
                                                                                                                                                                                                                                                                                           precursor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         51.6%;
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                                                                                                                                                                                                                                                                                                                           Last
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   381
                                                                                                                                                                                                                                                                                                                         sequence update)
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Pred. No. 4
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-!- SIMILARITY:

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RESULT 10
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Best Local S
Matches 6
                                                                                        Tanihara H., Sano K., Heimark R.L., St John T., Suzuki S., "Cloning of five human cadherins clarifies characteristic features of cadherin extracellular domain and provides further evidence for two structurally different types of cadherin.", cell Adhes. Commun. 2:15-26(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                              01-OCT-1996 (Rel. 34, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Cadherin-11 precursor (Osteoblast-cadherin) (OB-cadherin) (OSF-4).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CARBOHYD
CARBOHYD
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DOMAIN
    MEDLINE=94216322;
Okazaki M., Takesh
                                                                                                                                                                                                                 TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                                                                                                                                                                                                                                                                                          CDH11
                                                                                                                                                                                                                                                                                                                                                                                             P55287; Q15065; Q15066; Q9UQ93; Q9UQ94; 01-0C7-1996 (Rel. 34, Created) 01-0C7-1996 (Rel. 34, Last sequence updates of the control of the cont
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CADB
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SIGNAL
                                          TISSUE=Osteosarcoma;
                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                               MEDLINE=95073006; PubMed=7982033;
                                                                                                                                                                                                                                 SEQUENCE FROM N.A. (ISOFORM 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            HUMAN
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SMART; SM00112; CA; 5:
PROSITE; PS00232; CADHERIN 1;
PROSITE; PS50268; CADHERIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00028; cadherin; 5
Pfam; PF01049; Cadherin C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for commodified and this statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               EMBL; AF055342; AAC33675.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin
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                                                                                                                                                                                                                                                                                                                                (Human).
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                    PubMed=8163513;
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    Kawai
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Pred. No.
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CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
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EXTRACELLULAR
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Kikuno
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(See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
R.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
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Tsujimura
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PROSITE; PS50268; CADHERIN 2; 5.
Cell adhesion; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                     Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin C t
PRINTS; PR00205; CADHERIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Molecular cloning a of cadherin family of J. Biol. Chem. 269:[3]
                                                                                                                                                                                                                                                          PRINTS; PR00205; CAI SMART; SM00112; CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; D21254; BAA04798.1; -.
EMBL; D21255; BAA04799.1; -.
EMBL; AF060370; AAD27755.1; -.
EMBL; AF060369; AAD27755.1; JOINED.
                                                                                                                                                                                                                                                                                                                                       InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                    GO; GO:0016021; C:integral to membra GO; GO:0007156; P:homophilic cell ad GO; GO:0001503; P:ossification; NAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       modified and this statement entities requires a license
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 600-668 FROM N.A. (ISOFORMS 1 AND 2).

KOOLS P.F.J., Hogendoorn P.C.W., Bovee J.V.M.G., Van Roy F.;

KOOLS P.F.J., Hogendoorn P.C.W., Bovee J.V.M.G., Van Roy F.;

"Alternative cadherin-11 transcripts encoding truncated adhesion molecules are detectable in both human cancer and normal cells.";

Submitted (APR-1998) to the EMBL/GenBank/DDBJ databases.

-!- FUNCTION: Cadherins are calcium dependent cell adhesion protein they preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types.

-!- SUBCELLULAR LOCATION: Type I membrane protein.

-!- ALTERNATIVE PRODUCTS:
                                                                 TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Genew; HGNC:1750; CDH11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        EMBL; AF060369; AAD27756.1; JOINED PIR; A38992; A38992.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            EMBL; L34056; AAA35622.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  the European Bioinformatics Institute. Thuse by non-profit institutions as long
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HSSP; P15116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    between the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             other tissues. Expressed in neuroblasts. -!- SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Diversity of the cadherin family: evidence for eight new cadherins in nervous tissue.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             MEDLINE=91283540; PubMed=2059658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 269-796
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   rissum=fetal brain;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Event=Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Regul. 2:261-270(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AF060370;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IsoId=P55287-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IsoId=P55287-2; Sequence=VSP_000640,
                                                                                                                                                                        Alternative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD27756.1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 splicing; Named isoforms=2;
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Expressed mainly in brain but also
                                                                                                                                                                                                                                                                                                   term;
                                                                                                                                                                                                                                                                                                                                                                                                                                  to membrane; NAS.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            is not removed
               CYTOPLASMIC CADHERIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                             cell adhesion;
                                                           EXTRACELLULAR (POTENTIAL)
POTENTIAL.
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CADHERIN-11.
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                                      (POTENTIAL)
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                                                                                                                                                                                     Calcium-binding; Repeat;
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P55288;
01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
15-MAR-2004 (Rel. 43, Last annotation update)
7-4horin-11 precursor (Osteoblast-cadherin) (
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"Cloning
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SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Calvaria;
MEDLINE=94216322; PubMed=8163513;
MEDLINE=94216322; PubMed=8163513;
MEDLINE=94216322; PubMed=8163513;
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                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
MEDLINE=95269887; PubMed=7750650;
Kimura Y., Matsunami H., Inoue T., Shimamura K., Uchida N., Ueno T.,
Miyazaki T., Takeichi M.;
"Cadherin-11 expressed in association with mesenchymal morphogenesis
in the head, somite, and limb bud of early mouse embryos.";
Dev. Biol. 169:347-358(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE
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TISSUE=Olfactory epithelium;
MEDLINE=22388257; PubMed=12477932;
Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
Strausberg R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.
Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
                                                                                                                                                                       "Molecular cloning and characterization of OB-cadherin, of cadherin family expressed in osteoblasts.";
J. Biol. Chem. 269:12092-12098(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cadherin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=95269886; PubMed=7750649
Hoffmann I.H., Balling R.;
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Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biol. 169:337-346(1995).
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N-LINKED (GLCNAC. ...) (POTENTIAL).
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/FTId=VSP_000641.
RL -> SV (IN REF. 2).
M -> I (IN REF. 2).
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Sciurognathi; Muridae;
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> K (IN REF. 2).
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Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Baha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,

RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunarathe P.H.,

RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,

RA Richards S., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,

RA Rodriguez A.C., Grimwood J., Schmutz J., Wyers R.M.,

"Generation and initial analysis of more than 15,000 full-length

RT human and mouse cDNA sequences.;

RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Biol.
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Munro S.B., Blaschuk O.W.;
"A comprehensive survey of the cadherins expressed in the testes
fetal, immature, and adult mice utilizing the polymerase chain
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SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Selectively expressed in osteoblastic lines, precursor cell lines of osteoblasts, and primary osteoblastic cells from calvaria, as well as in lung, test osteoblastic cells from calvaria, as well as in lung, test
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DEVELOPMENTAL STAGE: In the testis, expression is highest in fetal gonad and decreases 8-fold in newborn.

SIMILARITY: Contains 5 cadherin domains.
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FUNCTION: Cadherins are calcium dependent cell adhesion pr
They preferentially interact with themselves in a homophil
manner in connecting cells; cadherins may thus contribute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
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EMBL; BC046314; AAH46314.1; PIR; A53584; A53584. PIR; I48277; I48277. PIR; I49556; I49556. HSSP; P15116; 1NCJ. DOMAIN TRANSMEM DOMAIN PROPEP CHAIN Signal SIGNAL PROSITE; PS00232; CADHERIN_1; 3.
PROSITE; PS50268; CADHERIN_2; 5.
Cell adhesion; Glycoprotein; Tra MGD; MGI:99217; Cdh11.
GO; GO:0005737; C:cytoplasm; IDA.
GO; GO:0005886; C:plasma membrane; IDA.
InterPro; IPR002126; Cadherin.
InterPro; IPR002136; Cadherin_C_term.
Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1. ; PR00205; CA; SM00112; CA; 251 54 618 641 CADHERIN. 24 53 796 617 640 POTENTIAL. CYTOPLASMIC Transmembrane; EXTRACELLULAR CADHERIN-11. (POTENTIAL) (POTENTIAL). Calcium-binding; Repeat;

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                                                This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it use by non-profit institutions as long as its content is in no was modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce
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                                     or send an email to license@isb-sib.ch)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=ICR; TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Cadherin-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-FEB-2003
28-FEB-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     HOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                              placenta.

DEVELOPMENTAL STAGE: Expressed at 9.5 dpc onwards.

brain (telencephalic vesicles and isthmus), spinal
buds (in the zone of polarizing activity). At 14.5

olfactory bulb and cerebellum.
                                                                                                                                                                                            INDUCTION: Down-regulated by thyroid hormone. SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                     SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Predominantly expressed in brain. Abundant i olfactory bulb, cerebrum, and cerebellum, less in pons, medulla, and spinal cord. Low expression in heart. No expression in lung,
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Dyn. 215:206-214(1999).

FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. PB-cadherins may have a role in the morphological organization of pituitary gland and brain
                                                                                                                                                                                                                                                                                                                                liver, spleen, kidney, testis, stomach, intestine,
                                                                                                                                                                                                                                                                                                                                                                                                                                             tissues
AB019618;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   55
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(Rel. 41,
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BAA34426.1;
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Last annotation
(PB-cadherin).
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Pred. No.
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Sciurognathi; Muridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT;
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                                                    . Usage by and for commercial http://www.isb-sib.ch/announce/
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At 14.5
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dpc, in
                                                                                                                                                                                                                                                                                                                                      colon, and
                                                                                                                                                    a collaboration
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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                                                                                                                                                                                                                                                                                                                                                            Sugimoto K., Honda S., Yamamoto Matsumoto K., Nakamura T.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 28-FEB-2003 (Rel. 41,
28-FEB-2003 (Rel. 41,
28-FEB-2003 (Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00232; CADHERIN 1; PROSITE; PS50268; CADHERIN 2; Cell adhesion; Glycoprotein;
                                                                                                                                                                                                                                                                            "Molecular cloning and characterization of a newly identified member of the cadherin family, pa-cadherin.";
J. Biol. Chem. 271:11548-11556(1996).
-i- FUNCTION: Cadherins are calcium dependent cell adhesion proteins
                                                                                                                                                                                                                                                                                                                                                                                                     MEDLINE=96212232; PubMed=8626716;
                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=Wistar;
                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NCBI_TaxID=10116;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rattus norvegicus (Rat).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CDH22
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HSSP; P15116; INC
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InterPro; IPR000233; Cadherin_C_term.
                                                                                                                                                                                           They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to sorting of heterogeneous cell types. PB-cadherins may have a in the morphological organization of pituitary gland and brai
                                                             Name=2
                                                                                                                                          SUBCELLULAR LOCATION: ALTERNATIVE PRODUCTS:
                                                                                                     Name=1
                                                                                                                     Event=Alternative
                                                                                                                                                                                 tissues.
    IsoId=Q63315-2; Sequence=VSP 000643, VSP 000644;
Note=No experimental confirmation available;
ISSUE SPECIFICITY: Strongly expressed in the pitu
                                                                                IsoId=Q63315-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61
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                                                                                                                                                                                                                                                                                                                                                                                                                    (ISOFORMS 1 AND 2), AND SUE=Brain, and Pituitary;
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                                                                              Sequence=Displayed;
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Last annotation updat
                                                                                                                                                          Туре
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata;
Sciurognathi; Muridae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               5 2
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                                                                                                                       Named isoforms=2;
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                                                                                                                                                                                                 PB-cadherins may have a role pituitary gland and brain
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the pituitary gland
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 813;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Murinae;
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                                                                                        CADO HUMAN STANDARD; PRT; 819 AA. Q86UPO; Q86UP1; Q9NT84; 15-MAR-2004 (Rel. 43, Created) 15-MAR-2004 (Rel. 43, Last sequence update) 15-MAR-2004 (Rel. 43, Last annotation update) Cadherin-24 precursor (UNQ2834/PRO34009).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRINTS; PRO0205; CADHERIN.
SMART; SM00112; CA; 5.
PROSTTE: BOOCCO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal; Alternative SIGNAL 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00232; CADHERIN_1; PROSITE; PS50268; CADHERIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; D83348;
EMBL; D83349;
                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                CDH24 OR CDH11L.
Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                   SEQUENCE
                                                                                                                                                                                                                                                                                                                                                            VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                    VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                              CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the brain (in the inner granular and glomerular layers of the olfactory bulb, anterior olfactory nucleus, primary olfactory cortex, Purkinje cell layer of cerebellum, and pineal gland). expression in lung and heart. No expression in submandibular gland, thymus, liver, spleen, adrenal, and kidney. DEVELOPMENTAL STACE: Expressed strongly in fetal brain. SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P15116;
                                                                                                                                                                                                                             61
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                                                                                                                                                                                                                                                                              Similarity 6; Conserv
                                                                                                                                                                                                                           WVWNQFFVVEE
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                                                                                                                                                                                                                                                                                                                                   813 AA;
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622
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275
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668
                                                                                                                                                                                                                                                                                Conservative
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BAA11895.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Glycoprotein; Transmembrane; Calcium-binding; Repeat;
 (ISOFORMS 1 AND 2), FUNCTION, AND INTERACTIONS WITH
                                                                                                                                                                                                                                                                                                                                                            813
                                                                                                                                                                                                                                                                                                                                                                                                    813
621
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                                                                                                                                                                                                                                                                                           48.9%;
                                                                                                                                                                                                                                                                                                                                   MW;
                                                                                                                                                                                                                                                                              Score 45; DB Pred. No. 21; 2; Mismatches
                                                                                                                                                                                                                                                                                2;
                                                                                                                                                                                                                                                                                                                                               Missing (i
/FTId=VSP_
                                                                                                                                                                                                                                                                                                                                                                                                CADHERIN 4.

CADHERIN 5.

N-LINKED (GLCNAC. ..) (POTENTIAL)

N-LINKED (GLCNAC. ..) (POTENTIAL)

N-LINKED (GLCNAC. ..) (POTENTIAL)

N-LINKED (GLCNAC. ..) (POTENTIAL)

N-LINKED (GLCNAC. ..) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      POTENTIAL.
CYTOPLASMIC (POTENTIAL).
CADHERIN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CADHERIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CADHERIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EXTRACELLULAR (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CADHERIN-22
                                      Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                     NKEDHOCPASLSLGFKP (in isoform 2).
                                                                                                                                                                                                                                                                                                                                                                          FTId=VSP
                                                                                                                                                                                                                                                                                                                                   30BEA60B5D2D467B CRC64;
                                                                                                                                                                                                                                                                                                                                               (in isoform 2).
SP_000644.
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                                                                                                                                                                                                                                                                                                         Length 813;
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Clark H.F., Gurney A.I., Abaya B., Baker K., Baldwin D., Brush J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P. Baton D., Foster J., Grimaldi C., Gu O., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie B., Sanchez C., Schoenfeld J., Seshagiri S., Simons L., Singh J., Smith V., Stinson J., Vagts A., Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.-H., Yansura D., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I., Godowski D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=22753805; PubMed=12734196;
Katafiasz B.J., Nieman M.T., Wheelock M.J., Johnson K.R.;
"Characterization of cadherin-24, a novel alternatively spliced type
                                                                                                                                                                                                                                                           EMBL; AY260900; AAR20590.1; --
EMBL; AY260901; AAR20591.1; --
EMBL; AY36199; AAAQ8856.1; --
EMBL; AL137477; CAB70758.1; --
EMBL; T46418; T46418.
                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBI outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cell-cell adhesion.
-:- SUBUNIT: Associates with alpha-, beta- and delta-catenins.
-:- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
-:- ALTERNATIVE PRODUCTS:
Event=Alternative splicing; Named isoforms=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORM 2).
MEDLINE=22887296; PubMed=12975309;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CATENINS.
                                                                                                                                                                                                       Genew; HGNC:14265; CDH24.
InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       bioinformatics assessment.";
Genome Res. 13:2265-2270(2003).
                                                                                                                                                                          Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Godowski P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    II cadherin.";
              PROPEP
CHAIN
                                                 Cell adhesion; Glycoprotein; Transmembrane; Calcium-binding; Repeat; Signal; Multigene family; Alternative splicing.

1 POTENTIAL.
                                                                                                                                       PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 4.
                                                                                                                                                                                                                                                                                                                                                                   or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TISSUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A. (ISOFORM 3).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    effort to identify novel human secreted and transmembrane proteins:
                                                                                                  PROSITE; PS00232; CADHERIN_1; 2. PROSITE; PS50268; CADHERIN_2; 5.
                                                                                                                                                                                                                                                                                                                                                                                       entities requires a license agreement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             -!- SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "The secreted protein discovery initiative (SPDI), a large-scale
DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               IsoId=Q86UP0-1; Sequence=Displayed;
Name=2; Synonyms=Short form;
IsoId=Q86UP0-2; Sequence=VSP_008717;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sorting of heterogeneous cell types. Cadherin-24 mediate strong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Name=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=1; Synonyms=Long form;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         IsoId=086UP0-3; Sequence=VSP_008718, VSP_008719; Note=No experimental confirmation available;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chem. 278:27513-27519(2003).
 44
819
641
                                                                                                                                                                            term;
POTENTIAL.
CADHERIN-24.
EXTRACELLULAR
                                                                                                                                                                                                                                                                                                                                                                                     moved. Usage by and for commercial (See http://www.isb-sib.ch/announce/
   (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dowd P.,
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RESULT 15
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                                RA Deloukas P. Matthews L.H. Abhurst J., Burton J., Gilbert J.G.R., RA Deloukas P., Matthews L.H. Abhurst J., Babbage A.K. Bagguley C.L., RA Bailey J., Barlow K.F., Bates K.N. Beard L.M., Beare D.M., Bearley O.P., Bird C.P., Blakey S.E., Bridgeman A.M., Brown A.J., RA Beasley O.P., Bird C.P., Blakey S.E., Bridgeman A.M., Brown A.J., RA Bluck D., Burrill W.D., Butler A.P., Carder C., Carter N.P., Clee C.M., RA Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R., Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R., RA Clington A.G., Frankland J.A., Fraecr A., French L., Garner P., RA Ellington A.G., Frankland J.A., Fraecr A., French L., Garner P., RA Hummond S., Harley J.L., Heath P.D., Ho S., Holden J.L., Howden P.J., RA Hukkle E., Hunt A.R., Hunt S.E., Jekosch K., Johnson C.M., Johnson D., RA Kay M.P., Kimberley A.M., King A., Knights A., Laird G.K., Lawlor S.R., Lehvaeslaiho M.H., Leversha M.A., Lloyd C., Lloyd D.M., Loveil J.D., RA Kay M.P., Kimberley J.M., Wolfer M.J.F., Mullikin J.C., Nickerson T., RA Milne S.A., Mistry D., Moore M.J.F., Mullikin J.C., Nickerson T., RA Milne S.A., Parker A., Patel R., Pearce T.A.V., Peck A.I., Phillimns S.A., Nicker S., Sownkeen R., Sims S., Swann R.M., Sycamore N., Taylor R., Tee L., Thomas D.W., Thorpe A., RA Swuce C.D., Smith M.L., Soderlund C., Steward C.A., Sulston J.E., RA Mintehead S.L., Whittaker P., Willey D.L., Wallis J.M., RA Wiltiams S.A., Whittaker P., Willey D.L., Williams L., Williams S.A., RA Wilming L., Wray P.W., Hubbard T., Durbin R.M., Bentley D.R., Beck S., RA RA Milne B. C., Vaudin M., Wall M., Bentley D.R., Beck S., RA RA Milne B. C., Vaudin M., Wall M., Bentley D.R., Beck S., RA RA Milne B. C., Wallis D.L., Williams S.A., RA Milne B. C., Wallis D.L., Williams S.A., Beck S., RA Milne B. C., Wallis D.L., Williams S.A., RA Milne B. C., Wallis D.L., Williams S.A., Beck S.,
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Matches 6
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CARBOHYD
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28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
28-FEB-2003 (Rel. 41, Last annotation update)
Cadherin-22 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HUMAN
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                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21638749; PubMed=11780052;
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 414:865-871 (2001)
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            and comparative
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Primates;
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N-LINKED (GLCNAC...) (POTENTIAL).
Missing (in isoform 2).
/FTId=VSP 008717.
Missing (In isoform 3).
/FTId=VSP 008718.
EGTIHTAAPLDREARAMHNLTVLATELGWSWGPERGWVPLL VAEWSAPAAPPORSPVGSAVGIPO -> MNIVCTWYCSIHS ATLFSTCTLHAVFMCFLCMLYASGGIHAHAPHMLRVNCVVC VWRVCFGYLPS (in isoform 3).
/FTId=VSP 008719.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 45; DB Pred. No. 21; 2; Mismatches
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CYTOPLASMIC
CADHERIN 1.
CADHERIN 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  N-LINKED
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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9083034F18BA7E4A CRC64;
              analysis
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              human
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(POTENTIAL)
                chromosome 20.";
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SEQUENCE OF 44
TISSUE=Brain;
                                                                                CARBOHYD
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DOMAIN
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DOMAIN
                                                                                                                                                                                                                                                        PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                            entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                 use by non-profit institutions as long as its content modified and this statement is not removed. Usage by ar
                                                                                                                                                                                                                                                                                                                                                                                                                                        This SWISS-PROT entry is copyright. It is produced between the Swiss Institute of Bioinformatics and the European Bioinformatics Institute. There are n
                                                                                                                                                                                                                                                                             PRINTS; PR00205; CAI
SMART; SM00112; CA;
                                                                                                                                                                                                                                                                                                 Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_t
                                                                                                                                                                                                                                                                                                                               HSSP; P15116; 1NCJ.
InterPro; IPR002126; Cadherin.
                                                                                                                                                                                                                                                                                                                                                     Genew;
                                                                                                                                                                                                                                                                                                                                                               EMBL; AL031687; CAB51587.2; EMBL; AF035300; AAB88183.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Yu W.,
                                                                                                                                                                                                                                              Cell adhesion;
                                                                                                                                                                     DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                W., Sarginson J., Gibbs R.A.;
Itted (NOV-1997) to the EMBL/GenBank/DDBJ databases.
FUNCTION: Cadherins are calcium dependent cell adhesion prote
They preferentially interact with themselves in a homophilic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Type I membrane protein (By similarity). SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. PB-cadherins may have a rolin the morphological organization of pituitary gland and brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tissues (By similarity)
64
                                                                                                                                                                                                                                                                                                                                                       HGNC:13251; CDH22.
                 2 WIWNOMHIDEE
                                       Similarity
6; Conserv
                                                                                                                                                                                                                                                        PS50268; CADHERIN_1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF 449-828 FROM
WVWNQFFVVEE
                                                                                                                                                                                                                                                                                                                     IPR000233; Cadherin_C_term.
                                                                                 828
                                                                                                      1
625
646
646
169
169
162
162
163
                                         Conservative
                                                                                                                                                                                                                                              Glycoprotein; Transmembrane;
                                                                                 AA;
                                                                                                                                                                                                                                                                                        CADHERIN
                                                                                             34
828
624
645
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828
828
828
168
277
277
277
277
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277
616
616
616
616
                                                                                 89091
                                                   48.9%;
54.5%;
 74
                   12
                                                                                                                                                                                                                                                                                                 term;
                                                                                  ¥.
                                                                                                                         POTENTIAL.
CYTOPLASMIC
CADHERIN 1.
CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
CADHERIN 5.
                                                                                            N-LINKED
                                                   Score 45;
Pred. No.
                                                                                                                  N-LINKED
                                                                                                                                                                                                      EXTRACELLULAR (POTENTIAL)
                                                                                                                                                                                                                                                         υ
.
                                                                                  520F7B1D1F624DCA
                                                                                          (GLCNAC. . .)
(GLCNAC. . .)
(GLCNAC. . .)
                                                                                                                                                                                                                                                                                                                                                                                                                                         There are no restrictions on
                                                              DB 1;
                                                                                                                                                                                                                                               Calcium-binding; Repeat;
                                                              Length 828;
                                                                                   CRC64;
                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                   through a collaboration the EMBL outstation
                                                                                                         (POTENTIAL)
                                                                                             (POTENTIAL)
                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                       for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            proteins
                                          0
                                                                                                                                                                                                                                                                                                                                                                                                                                                      collaboration
L outstation -
                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              role
                                                                                                                                                                                                                                                                                                                                                                                                                             no
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Search completed: July 29, 2004, 11:35:22 Job time: 6.66667 secs

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OM protein - protein search, using sw model
       SPTREMBL 25:*

1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_plage:*
10: sp_plant:*
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12: sp_virus:*
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15: sp_bacteriap::
16: sp_barcheap:*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1017041 segs, 315518202 residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BLOSUM62
Gapop 10.0 , Gapext 0.5
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92
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DWIWNOMHIDEEKNT 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GenCore version 5.1.6 Copyright (c) 1993 - 2004 Compugen Ltd.
sp_mho:*
sp_organelle:*
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sp_phage:*
sp_vinut:*
sp_virus:*
sp_vertebrate:*
sp_wertebrate:*
sp_vertebrate:*
sp_vertebrate:*
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sp_archeap:*
                                                                                                                                                                                         sp_invertebrate:*
sp_mammal:*
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pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	% Query Match Length DB	DB	ID	Description
1	87	94.6	782	ه į	Q8WNW5	Q8wnw5 sus scrofa
2	64	69.6	773	13	QBAYDO	Q8ayd0 gallus gall
ω	49	53.3	247	11	Q8C9N7	Q8c9n7 mus musculu
4	49	53.3	716	11	Q8C449	Q8c449 mus musculu
υ	49	53.3	716	11	Q8C375	Q8c375 mus musculu
6	49	53.3	754	11	QBBRK4	Q8brk4 mus musculu
7	48	52.2	524	'n	001321	001321 caenorhabdi
8	46	50.0	313	16	Q88HL3	Q88hl3 pseudomonas
9	45	48.9	176	10	Q8RYF1	Q8ryf1 avena strig
10	45	48.9	241	4	086TS8	Q86ts8 homo sapien
11	45	48.9	310	10	Q8W5G3	Q8w5g3 oryza sativ
12	45	48.9	333	N	Q9L3G9	Q913g9 erwinia rha
13	45.	48.9	350	w	Q00870	Q00870 nectria hae
14	45	48.9	493	4	Q96LQ7	Q961q7 homo sapien
15	45	48.9	566	w	Q9C477	Q9c477 cladosporiu
16	45	48.9	781	4	Q86UP1	Q86up1 homo sapien

45	44	43	42	41	40	39	38	37	36	35	34	<u>υ</u>	32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17
43	43	43	43	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44	44.5	45	45	45	45	45
46.7		46.7		47.8		47.8	47.8	47.8	47.8	47.8	47.8		47.8		47.8	47.8	•				47.8			48.9			48.9	48.9
253	248	246	192	1497	1356	801	798	798	794	790	790	785	630	551	500	500	340	337	271	271	219	76	963	839	819	796	796	794
16	16	16	16	16	Ŋ	11	13	13	4	13	4.	11	4.	13	16	16	11	11	σ	տ	16	11	10	ហ	4	11	4	13
Q7U5H3	Q7VA86	Q7V2E4	Q7VD46	Q87GE0	QBICGO	Q9Z0M3	Q7ZYV7	Q8QGH3	Q86UD2	Q91838	Q8N5Z2	Q8BM92	Q81Y78	Q8AWW2	Q8NW11	Q99T97	Q8BLT4	Q8BLB5	Q9VLK9	Q8T9K7	QBECK3	Q8BLT5	Q9STU7	Q9N2R2	Q86UP0	Q8C7Q6	Q96CZ9	093264
Q7u5h3 synechococc				_	plasmod:		gallus	gallus	homo sa	xen	rdes omor	Q8bm92 mus musculu	nomo sa	Q8aww2 gallus gall	Q8nw11 staphylococ		Q8blt4 mus musculu	mus	Q.		w			Û	Q86up0 homo sapien	Q8c7q6 mus musculu		O93264 xenopus lae

ALIGNMENTS

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RESULT
QBC9N7
LD Q8
AC Q8
AC Q8
DT 01
DT 01
DT 01
DT 01
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Best Local S
Matches 10
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Best Local Similarity
                                                                                              Q8C9N7;
Q8C9N7;
01-MAR-2003 (
01-MAR-2003 (
01-OCT-2003 (
    Mus musculus (Mouse).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Signal.
SIGNAL
CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Romero S:, Jaffredo T., Dunon D.;
Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF522667; AAN33002.1; -
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion; IEA.
InterPro; IPR002126; Cadherin.
InterPro; IPR002126; Cadherin.
LTCerPro; IPR000213; Cadherin. C term.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Q8AYD0;
Q8AYD0;
01-MAR-2003
01-MAR-2003
                                                                             Cadherin 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     01-MAR 2003 (TrEMBLrel. 23, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-CCT-2003 (TrEMBLrel. 25, Last annotation updat
Vascular endothelial cadherin precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00232; CADHERIN_1; PROSITE; PS50268; CADHERIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRINTS; PR00205; CADHERIN.
SMART; SM00112; CA; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_te
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN 2; Cell adhesion; Glycoprotein.
Calcium; Calcium-binding; Cell adhesion; Glycoprotein.
SEQUENCE 782 AA; 87536 MW; 6EID12D017CB1083 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 5.
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Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1.
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                                                                                                                                                                                                                                                                                                                    41 DWIWNRMHIREE 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         45
                                                                                                                                                                                                                                                                                                                                                                                                                   10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
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43
773 AA;
                                                                                              (TrEMBLrel. (TrEMBLrel. (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                  PRELIMINARY;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18 I
773 V
86842 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                            Score 64; DB 13;
Pred. No. 0.064;
1; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 87;
Pred. No
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VASCULAR ENDOTHELIAL CADHERIN.
AC59CE11119043F4 CRC64;
Craniata; Vert
Sciurognathi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          POTENTIAL.
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Vertebrata; Euteleostomi;
thi; Muridae; Murinae; Mus
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hes 0;
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RESULT
ORGAN
ID C449
ID C449
ID C449
ID C449
ID C7
ID T 011
ID T 0
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Matches 7
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Best Local
                                                                                                                                                                                                        InterPro; IPR002126; Cadherin.
InterPro; IPR00223; Cadherin C_term.
Pfam; PF00028; Cadherin; 5.
Pfam; PF01049; Cadherin C_term; 1.
PRINTS; PR00205; CADHERIN.
SMART; SM00112; CA; 5.
                                                                                                                                                                                                                                                                                                                                                     the RIKEN Genome Exploration Research Group Phase I & II
"Analysis of the mouse transcriptome based on functional
60,770 full-length cDNAs.";
Nature 420:563-573(2002).
BMBL; AK083092; BAC38758.1; -.
BMBL; AK083092; BAC38758.1; -.
MGD; MGI:107434; CGMB.
GO; GO:0016720; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Q8C449;
Q8C449;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Hippocampus;
MEDLINE=22354683, PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDH8
                                                                                                                                          PROSITE; PS00232; CADHERIN 1; PROSITE; PS50268; CADHERIN 2; SEQUENCE 716 AA; 79145 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              01-MAR-2003
01-OCT-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00232; CADHERIN 1; 1.
PROSITE; PS50268; CADHERIN 2; 2.
SEQUENCE 247 AA; 27565 MW; D
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nature 420:563-573(2002).

EMBL; AK041720; BAC31041.1;

GO; GO:0016020; C:membrane; IEA.

GO; GO:0005509; F:calcium ion binding; IEA.

GO; GO:0007156; P:homophilic cell adhesion; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mus musculus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-MAR-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR002126; Cadherin. Pfam; PF00028; cadherin; 2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation 60,770 full-length cDNAs.";
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STRAIN-C57BL/6J; TISSUE=Thymus;
MEDLINE=22354683; PubMed=12466851;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63
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                                                                      Similarity
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Metazoa; C
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                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Chordata;
Rodentia;
                                                                   53.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  53.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
                                          Score 49; DB 11; Length 716; Pred. No. 17; 2; Mismatches 2; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2;
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Pred. No. 5.4;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRT;
                                                                                                                                          976FF5D845F938BD CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DF7551A97A29289D CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             716 AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2
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RESULT
Q8C375
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Best Local S
Matches 7
EMBL; AKUTTER
GO; GO:0016020;
                                                                                                                                                                                                                                                                                                                                   01-MAR-2003
01-OCT-2003
Cadherin 8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Q8C375;
01-MAR-2003
01-MAR-2003
01-OCT-2003
                 the RIKEN Genome Exploration Research "Analysis of the mouse transcriptome k 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
EMBL; AK044046; BAC31751.1; -.
GO; GO:0016020; C:membrane; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PROSITE; PS50232; CADHERIN 1; 3.

PROSITE; PS50268; CADHERIN 2; 5.

PROSITE; PS50268; CADHERIN 2; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR002126; Cadherin.
InterPro; IPR00023; Cadherin C term.
Pfam; PF00028; Cadherin 5.
Pfam; PF01049; Cadherin C term; 1.
PRINTS; PR00205; CADHERIN.
SMART; SM00112; CA; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            "Analysis of the mouse transcriptome k 60,770 full-length cDNAs.";
Nature 420:563-573(2002).
EMBL: AK086711; BAC39724.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                            SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Cortex;
MEDLINE=22354683; PubMed=12466851;
The FANTOM Consortium,
                                                                                                                                                                                                                                                                                                                                                                                                  Q8BRK4;
01-MAR-2003
                                                                                                                                                                                                                                                                     Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Head;
                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                              Q8BRK4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The FANTOM Consortium,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=10090;
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GO:0016020; C:membrane; IEA.
GO:0005509; F:calcium ion binding; IEA.
GO:0007156; P:homophilic cell adhesion;
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Chordata;
                                                                                                                                                                                                                                                                   Chordata;
Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      53.3%;
63.6%;
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Last sequence update)
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 49; DB Pred. No. 17; 2; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                     Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                     h Group
based o
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based o
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on func
                                                                                                     p Phase I & II
on functional
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functional
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                                                                                                                                                                                                                                                                         Murinae; Mus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Team; annotation
                                                                                                     Team; annotation
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RESULT 7

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Best Local :
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001321; P91858;
01-JUL-1997 (TrEMBLrel. (
01-NOV-1998 (TrEMBLrel. (
01-OCT-2003 (TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Wilson R., Ainscough R., Anderson K., Baynes C., Berks M.,
Bonfield J., Burton J., Connell M., Copsey T., Cooper J., Coulson I
Craxton M., Dear S., Du Z., Durbin R., Favello A., Fulton L.,
Gardner A., Green P., Hawkins T., Hillier L., Jier M., Johnston L.,
Jones M., Kershaw J., Kirsten J., Laister N., Latreille P.,
Lightning J., Lloyd C., Mcmurray A., Mortimore B., O'Callaghan M.,
Parsons J., Percy C., Rifken L., Roopra A., Saunders D., Shownkeen
Smaldon N., Smith A., Sonnhammer E., Staden R., Sulston J.,
Thierry-Mieg J., Thomas K., Vaudin M., Vaughan K., Waterston R.,
Watson A., Weinstock L., Wilkinson-Sproat J., Wohldman P.;
"2.2 Meinstock L., Wilkinson-Sproat J., Wohldman P.;
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SMART; SM00112; CA; 5.

PROSITE; PR000232; CADHERIN 1;

PROSITE; PS00268; CADHERIN 2;

SEQUENCE 754 AA; 83624 MW;
                                                                                                                                                                                                                                            EMBL; Z81516; CAB04206.1; -.
EMBL; Z75535; CAB04206.1; JOINED.
EMBL; Z75535; CAA99829.1; -.
EMBL; Z81516; CAA99829.1; JOINED.
ENR; T20872; T20872.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A. Baynes C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Nemato
Rhabditidae; Peloderinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00028; cadherin; 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion;
InterPro; IPR002126; Cadherin.
InterPro; IPR002136; Cadherin C term.
                                                                                                                                                                                                                                                                                                                                                                               Submitted (JUN-1996) to
                                                                                                                                                                                                                                                                                                                                                                                                    Sims M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Caenorhabditis elegans.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            F26H9.1 protein.
                                                                                                                                                                          InterPro;
SEQUENCE
                                                                                                                                                                                                                       WormPep; F26H9.1; CE09706.
                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nature 368:32-38(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=6239;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=94150718; PubMed=7906398;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        63 WVWNOMFVLEE
2 WIWNOMHIDEEKN
| |:| :|| :|
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 WIWNOMHIDEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 7; Conserv
                                                                         Similarity 7; Conserv
                                                                                                                                                                     IPR008945; Skp1_Skp2.
524 AA; 60462 MW;
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                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                 52.2%;
53.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53.3%;
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                                                                                                                                                                                                                                                                                                                                                                               the EMBL/GenBank/DDBJ databases.
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                                                                      Score 48; DB
Pred. No. 18;
3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Last sequence update)
Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EMBL/GenBank/DDBJ
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Pred. No.
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Martins dos Santos V.A.P., Fouts D.E., Gill S.R., Pop M., Holmes M.,
Brinkac L., Beanan M., DeBoy R.T., Daugherty S., Kolonay J.,
Madupu R., Nelson W., White O., Peterson J., Khouri H., Hance I.,
Chris Lee P., Holtzapple E., Scanlan D., Tran K., Moazzez A.,
Utterback T., Rizzo M., Lee K., Kosack D., Moestl D., Wedler H.,
Lauber J., Stjepandic D., Hoheisel J., Straetz M., Heim S.,
Kiewitz C., Eisen J., Timmis K.N., Duesterhoeft A., Tuemmler B.,
                        Loarce Y., Irigoyen M.L., Fominaya A., Ferrer "resistance gene analogous in Avena strigosa." Submitted (FEB-2002) to the EMBL/GenBank/DDBJ EMBL, AJ437574; CAD26862.1; -- GO; GO:0005524; F:ATP binding; IEA. GO; GO:0006915; P:apoptosis; IEA.
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01-JUN-2002 (TrEMBLrel. 21,
01-OCT-2003 (TrEMBLrel. 25,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Q8RYF1
                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; Pooideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pfam; PF00528; BPD_transp; Complete proteome.
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TIGR; PP3343; -.
GO; GO:0016020; C:membrane; IEA.
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                                                                                                                                                                                                                                                                       SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Avena strigosa (black oat).
Eukaryota; Viridiplantae; S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Putative resistance protein
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Pred. No. 22;
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01-MAR-2002 (TrEMBLrel. 2
01-MAR-2002 (TrEMBLrel. 2
01-MAR-2003 (TrEMBLrel. 2
Putative transcription fa
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NON TER
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01-JUN-2003 (TrEMBLrel. 24, Created)
01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-JUN-2003 (TrEMBLrel. 25, Last annotation update)
Human full-length cDNA 5-PRIME end of clone CS0DE010YP19
Human full-length colone (S0DE010YP19)
OSJNBA0002J24.23.
Oryza sativa (Rice).
Rukaryota; Viridiplantae; Streptophyta; Embryophyta;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PROSITE;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted [PEB-2003] to the EMBL/GenBank/DDBJ da EMBL; BX248750; CAD66557.1; -.
GO; GO:0046821; C:extrachromosomal DNA; IEA.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion; IEA.
InterPro; IPR002126; Cadherin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Placenta;
Li W.B., Gruber C., Jessee J., Polayes D.;
"Full-length cDNA libraries and normalization.";
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Mammalia; Eutheria;
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176 AA;
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241 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CADHERIN_1;
CADHERIN_2;
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                                                                                    . 20, Created)
20, Last sequence update)
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Pred. No.
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Pred. No.
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Catarrhini;
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17;
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i; Hominidae;
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                        Tracheophyta;
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RESULT 12
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Best Local S
Matches 7
                           Query Match
Best Local :
      Matches
                                                                                                                                                                                                                                                             "Members of the amylovora group of Erwinia are cellulolytic possess genes homologous to the type II secretion pathway."; Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases. EMBL; AJ276358; CAB89803.1; GG; GO:0008810; F:cellulase activity; IEA. GO; GO:0005975; P:carbohydrate metabolism; IEA.
                                                                                                                                      Glycosidase; Hydrolase; Signal.
SIGNAL 1 23 PO
                                                                                               SEQUENCE
                                                                                                                                                                              InterPro; IPR002037; Glyco_hydro_8.
InterPro; IPR008928; Glyco_trans_6hp.
Pfan; Pf01270; Glyco_hydro_8; 1.
PRINTS; PR00735; GLHYDRLASE8.
                                                                                                                                                                                                                                                                                                                                                                                                             Riekki R.
                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=NCPPB2989;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=NCPPB2989;
Saarilahti H.T.;
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01-OCT-2000
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SMART; SM00353; HLH; 1.

PROSITE; PS50888; HLH 2; 1.

SEQUENCE 310 AA; 34267 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Buell C.R., Yuan Q., Ouyang S., Liu J., Moffat K.S., Hill J.N., Gansberger K., Brenner M., Burgess S., Hance M., Shvartsbeyn M., Tsitrin T., Riggs F., Hsiao J., Zismann V., Blunt S., Pai G., Vanaken S.E., Utterback T.R., Feldblyum T.V., Kalb E., Quackenbu Salzberg S.L., White O., Fraser C.M.;
"Cryza sativa chromosome 3 BAC OSJNBa0002J24 genomic sequence."; Submitted (NOV-2001) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=55212;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Enterobacteriaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Erwinia rhapontici.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gramene; Q8W5G3; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TRANSCRIPTION FACTORS.
EMBL; AC090713; AAL34136.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Spermatophyta;
Ehrhartoideae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=cv. Nipponbare;
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    Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           7;
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                                                                                          333 AA;
  Conservative
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                                                                                                                    24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      precursor
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                                                                                        37784 MW;
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                         48.9%;
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    1; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL/GenBank/DDBJ
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Last annotation update)
3.2.1.4).
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Pred. No.
                    Score 45; DB
Pred. No. 34;
                                                                                                               POTENTIAL.
ENDOGLUCANASE
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                                                                                     D75CFF212302673A CRC64;
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                                         Length 333;
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RESULT 13
000870
1D 000870
200877
AC 00087
D1 NL-N(
DT 01-N(
DT 01
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Q96LQ7;
Q96LQ7;
Q96LQ7;
101-DEC-2001 (TrEMBLrel. 19, Create
T 01-DEC-2003 (TrEMBLrel. 25, Last
JT 01-OCT-2003 (TrEMBLrel. 25, Last
JF 01-OCT-2003 (TremBlrel. 19, Create
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                                                                                                                                                                                             Ninomiya K., Wagatsuma M., Kanda K., Kondo H., Furuya T., Takahashi M., Kikkawa E., Omura Y., Katsuta N., Sato K., Tanikawa M., Yamazaki M., Nakagawa K., Mizuno S., Morinaga M., Kawamura Irie R., Otsuki T., Sato H., Nishikawa T., Sugano S.; "NEDO human cDNA sequencing project."; Submitted (OCT-2001) to the EMBL/GenBank/DDBJ Submitted (OCT-2001) to the EMBL/GenBank/DDBJ
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SEQUENCE
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SIGNAL
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Q00870;
01-NOV-1996
01-NOV-1996
01-MAR-2002
                                  GO; GO:0016020; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0005194; F:cell adhesion molecule activity;
GO; GO:0007155; P:cell adhesion; IEA.
GO; GO:0007156; P:homophilic cell adhesion; IEA.
InterPro; IPR002126; Cadherin.
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NCBI_TaxID=9606;
[1]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bukaryota; Metazoa;
Mammalia; Eutheria;
PRINTS;
                        Pfam;
                                                                                                                                                                               EMBL; AK057922; BAB71613.1;
                                                                                                                                                                                                                                                                                                                                                                                                                 SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Li D., Chung K.R., Smith D.A., Schardl C.L.; "The Fusarium solani gene encoding kievitone hydratase, a secreted enzyme that catalyzes detoxification of a bean phytoalexin."; Mol. Plant Microbe Interact. 8:388-397(1995).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
STRAIN=FB1-5; TISSUE=Mycelium;
MEDLINE=95383711; PubMed=7655061;
Li. D., Chung K.R., Smith D.A., Sc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Eukaryota; Fungi; Ascomycota; Pezizomycotina;
Hypocreomycetidae; Hypocreales; Nectriaceae; N
MCBI TaxID=140110;
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                   PF00028; cadherin; 4.
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350 AA;
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350
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Chordata; Craniata; Vertebrata; Euteleostomi; Primates; Catarrhini; Hominidae; Homo.
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E., Omura Y., Abe K
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M., Kawamura M., Su
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na A., Kawak
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Q9C477;
Q9C477;
Q1-UUN-2001 (TrEMBLrel. 17, Created)
O1-UUN-2001 (TrEMBLrel. 17, Last sequence update)
O1-CCT-2003 (TrEMBLrel. 25, Last annotation update)
CATI catalase (EC 1.11.1.6).
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PROSITE; PS00232; CADHERIN 1; 2.

PROSITE; PS00268; CADHERIN 2; 4.

Hypothetical protein; Calcium; Calcium-binding; Cell adhesion; Glycoprotein.

Glycoprotein.
                                                                                                                                                                                                                                                                                                                                                                PRINTS; PRO0067; CATALASE.

PRODOM; PD000510; CATALASE 1; 1.

PROSITE; PS00437; CATALASE 2; 1.

PROSITE; PS00438; CATALASE 2; 1.

Heme; Hydrogen peroxide; Iron; Oxidoreductase; Peroxidase.

SEQUENCE 566 AA; 63896 MW; 59023AA3FEF32334 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             GO; GO:0004096; F:catalase activity; IEA.
GO; GO:0016491; F:oxidoreductase activity; IEA.
GO; GO:0004601; F:peroxidase activity; IEA.
GO; GO:0006118; P:electron transport; IEA.
GO; GO:0006979; P:response to oxidative stress; IEA.
InterPro; IPR002226; Catalase.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Identification of two highly divergent catalase genes in the fungal tomato pathogen, Cladosporium fulvum.";
Eur. J. Biochem. 268:15-24(2001).
-1- FUNCTION: OCCURS IN ALMOST ALL AEROBICALLY RESPIRING ORGANISMS AND SERVES TO PROTECT CELLS FROM THE TOXIC EFFECTS OF HYDROGEN
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STRAIN-Race 4;
MEDLINE-20570112; PubMed-11121097;
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Bukaryota; Fungi; Ascomycota; Pezizzomycotina;
Dothideomycetes et Chaetothyriomycetes incertae sedis;
Mycosphaerellaceae; mitosporic Mycosphaerellaceae; Cladosporium.
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CATALYTIC ACTIVITY: 2 H(2)O(2) = O(2) + 2 H(2)O.
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92
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SwissProt_42:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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ALIGNMENTS

RT RT	RL RT	RA RA RI	RT RT	RA A A R R R R R R R R R R R R R R R R	2000	RESUI CAD5 ID AC DT DT DT DT
PARTIAL SEQUENCE. PARTIAL SEQUENCE. TISSUE=Endothelial cells; MEDLINE=92394977; PubMed=1522121; Lampugnani M.G., Resnati M., Raiteri M., Pigott R., Pisacane A., Houen G., Ruco L.P., Dejana E.; "A novel endothelial-specific membrane protein is a marker of cell-cell contacts."; J. Cell Biol. 118:1511-1522(1992).	Biochem. J. 349:159-167(2000). [4] SEQUENCE OF 5-784 FROM N.A. TISSUE=Brain; MEDILINE=91283540; PubMed=2059658; MEDILINE:91283540; PubMed=4:059658; Suzuki S., Sano K., Tanihara H.; "Diversity of the cadherin family: evidence for eight new cadherins in nervous tissue."; Cell Regul. 2:261-270(1991). [5]	SEQUENCE FROM N.A. SEQUENCE FROM N.A. PubMed=10861224; Shimoyama Y., Tsujimoto G., Kitajima M., Natori M.; "Identification of three human type-II classic cadherins and frequent heterophilic interactions between different subclasses of type-II classic cadherins.";	SEQUENCE FROM N.A. SEQUENCE FROM N.A. TISSUE=Placenta; MEDLINE=97362755; PubMed=9219219; Ali J., Liao F., Martens E., Muller W.A.; "Vascular endothelial cadherin (VE-cadherin): cloning and role in endothelial cell-cell adhesion."; Microcirculation 4:267-277(1997).	SEQUENCE FROM N.A. SEQUENCE FROM N.A. SEQUENCE FROM N.A. TISSUE-Endothelial cells; MEDLINE=95353875; PubMed=7627717; MEDLINE=95353875; PubMed=7627717; Breviario F., Caveda L., Corada M., Martin-Padura I., Navarro P., Golay J., Introna M., Gulino D., Lampugnani M.G., Dejana E.; "Functional properties of human vascular endothelial cadherin (7B4/cadherin-5), an endothelium-specific cadherin."; Arterioscler. Thromb. Vasc. Biol. 15:1229-1239(1995).	Homo sapiens (Human). Homo sapiens (Human). Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCBI_TaxID=9606;	

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FUNCTION: Cadherins are calcium dependent cell adhesion proteins.

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Matches 15
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GO; GO:000586; C:plasma membrane; TAS.
GO; GO:0007156; P:homophilc cell adhesion;
InterPro; IPR002126; Cadherin.
InterPro; IPR00233; Cadherin_C_term.
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EMBL; X59796; CAA42468.1; -.
PIR; S49893; IJHUC5.
HSSP; P15116; INCJ.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions. It associates with alpha-catenin forming a link to the cytoskeleton. SUBCELLULAR LOCATION: Type I membrane protein. Found at cell-cell boundaries and probably at cell-matrix boundaries.

TISSUE SPECIFICITY: Endothelial tissues and brain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SIMILARITY: Contains 5 cadherin domains.
DATABASE: NAME=PROW; NOTE=CD guide CD144 entry;
WWW="http://www.ncbi.nlm.nih.gov/prow/cd/cd144.htm".
                                                                                                                                                                                                                                                                                                                                                       adhesion;
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SM00112; CA;
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Pred. No. 5e-07;
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15-JUL-1998
15-JUL-1998
16-OCT-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         15-JUL-1998 (Rel. 36, Created)
15-JUL-1998 (Rel. 36, Last sequence upda
16-OCT-2001 (Rel. 40, Last annotation up
Vascular endothelial-cadherin precursor
                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
DOMAIN
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NCBI_TaxID=9823;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (S or send an email to license@isb-sib.ch).
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CARBOHYD
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DOMAIN
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DOMAIN
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PROSITE; PS50268; CADHERIN_2;
Cell adhesion; Glycoprotein; '
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
Pfam; PF00028; cadherin_C_term; 1.
Pfam; PF01049; Cadherin_C_term; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL; Y13919; CAA74225.1; -. HSSP; P09803; 1EDH.
                                                                                       CARBOHYD
                                                                                                            CARBOHYD
                                                                                                                                                                 CARBOHYD
                                                                                                                                                                                DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SUBCELLULAR LOCATION: Type I membrane protein. Found a boundaries and probably at cell-matrix boundaries (By SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        associates with alpha-catenin forming a link to the cytoskeleton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; PR00205; CADHERIN.
SM00112; CA; 5.
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                                                      STANDARD;
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                                                          87546 MW;
 94.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                         Transmembrane; Calcium-binding; Repeat;
   Score 87;
Pred. No.
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EXTRACELLULAR
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                                                                           (GLCNAC.) (GLCNAC.) (GLCNAC.) (GLCNAC.) (GLCNAC.) (GLCNAC.)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (VE-cadherin)
     DB 1; L: 3.2e-06;
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                    Length 782
                                                          CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        a collaboration -
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Similarity

Matches

14;

Conservative

0;

Mismatches

0;

Indels

0;

Gaps

0

-1- SIMILARITY: Contains 5 cadherin domains.

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RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Schaefer C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buettow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Jordan H., Moore T., Max S.I., Wang J., Hsish F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsish F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsish F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsish F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsish F.,
RA Hopkins R.F., Jordan H., Moore T., Wang J., Hsish F.,
RA Hopkins R.F., Jordan H., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Uddin T.B., Bonaldo M.F., Garcina R.D., Mullahy S.J.,
RA Robards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Hakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Gunerch A., Schein J.E., Jones S.J.M., Marra M.A.;
"Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.", Stalska U., Smailus D.E.,
RA "Generation and initial analysis of more than 15,000 full-length human and money in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. This cadherin may play a important role in endothelial cell biology through control of the cohesion and organization of the intercellular junctions.

CC -i- SUBCELLULAR LOCATION: Type I membrane protein.
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STRAIN=C57BL/6;
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01-OCT-1996 (Rel. 34, Created)
10-OCT-2003 (Rel. 42, Last sequence update)
10-OCT-2003 (Rel. 42, Last annotation update)
Vascular endothelial-cadherin precursor (VE-cadherin) (Cadherin-5).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MOUSE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         vascular
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRAIN=BALB/c; TISSUE=Breast carcinoma; MEDLINE=97364256; PubMed=9220534;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Matsuyoshi N.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Breier G., Breviario F., Caveda L., Berthi
Gotsch U., Vestweber D., Risau W., Dejana
"Molecular cloning and expression of murir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TISSUE=Brain capillary;
MEDLINE=96141083; PubMed=8555485;
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6; TISSUE=Brain;
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Rodentia;
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RESULT 4
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Matches 14
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28-FEB-2003
28-FEB-2003
15-MAR-2004
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EMBL; D63942;
EMBL; BC054790
                                                          NCBI_TaxID=9606;
                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutere Mammalia; Eutheria; Primates; Catarrhini, Hominidae; Homo
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CARBOHYD
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MEDLINE=20453188; PubMed=10995570;

Kools P., Van Imschoot G., van Roy F.;

"Characterization of three novel human cadherin genes
and CDH20) clustered on chromosome 18q22-q23 and with
to chicken cadherin-7.";
                                     SEQUENCE FROM N.A. MEDLINE=20453188;
                                                                                                 Homo sapiens (Human)
                                                                                                            CDH19 OR CDH7L2.
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SIGNAL
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InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 5.
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D63942; BAA22617.1; -.
BC054790; AAH54790.1; -.
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                                                                                      Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                         94.6%;
100.0%;
                                                                                                                    Last sequence update)
Last annotation updat
(UNQ478/PRO941).
                                                                                                                                                   Created)
                                                                                                                                                                                                                          59
                                                                                                                                                                                                                                                                                                       MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         term;
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                                                                                                                                                                                                                                                                                                                                                                            CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
CADHERIN 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                      CYTOPLASMIC CADHERIN 1.
                                                                                                                                                                                                                                                                                                                                                                     SER-RICH.
                                                                                                                                                                                                                                                                                                                                                                                                                                            EXTRACELLULAR POTENTIAL.
                                                                                                                                                                       PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               VASCULAR ENDOTHELIAL-CADHERIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         POTENTIAL
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                                                                                                                                                                                                                                                                                   Length 784;
                                                                                                                                                                                                                                                                                                        CRC64;
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                                                                                                                                                                                                                                                                                                                                   ) (POTENTIAL)
) (POTENTIAL)
) (POTENTIAL)
                                                                                                                                                                                                                                                                                                                  (POTENTIAL)
      high homology
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                 CDH19,
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CADB HUMAN STAN
ID CADB HUMAN STAN
AC P55286; Q9ULB2;
DT 01-CCT-1996 (Rel. 3
DT 16-CCT-2001 (Rel. 4
DT 16-CCT-2001 (Rel. 4
DT 16-CCT-2001 (Rel. 4
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PRINTS;
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InterPro; IPR00233; Cadherin_C_term.
Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_term; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genew; HGNC:1758; CDH19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AY358654;
HSSP; P15116; 11
                                                                                                                                                                                                                                                                                                                                                                                                                                  PROSITE; PS00232; CADHERIN_1; 2.
PROSITE; PS50268; CADHERIN_2; 5.
Cell adhesion; Glycoprotein; Tra
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GO; GO:0007156;
                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FUNCTION: Cadherins are calcium dependent cell adhesion proteins They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types.

SUBCELLIGIAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Expressed in many tissues, with the exception
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIMILARITY: Contains 5 cadherin domains
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         603016;
                                                                                                              45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; PR00205; CADHERIN.
SM00112; CA; 5.
                                                                                                                                    N
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8; Conserv
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                                                                                                              WVWNQFFVPEEMNT
   precursor.
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5158
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                                                                                                                                                                                                     AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C:integral to membrane; NAS. P:homophilic cell adhesion; 2126; Cadherin.
                                                         STANDARD;
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           34,
40,
                                                                                                                                                                                                                87002
                                                                                                                                                                    62.0%;
           Last sequence update)
Last annotation updat
                                   Created)
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Pred. No. 0.19
2; Mismatches
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N-LINKED
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                                                                                                                                                                                                                                                                                                                                                                               EXTRACELLULAR
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Tanihara H., Sanó K., Heimark R.İ., St John T., Suzuki S.; "Cloning of five human cadherins clarifies characteristic i catherin extracellular domain and provides further evidence structurally different types of cadherin."; Cell Adhes. Commun. 2:15-26(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            heterophilic interactions classic cadherins.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Shimoyama Y., Tsujimoto G., Kitajima M., Natori M.; "Identification of three human type-II classic cadherins and frequent heterophilic interactions between different subclasses of type-II
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                               Signal.
SIGNAL
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                                                                                                                                PROSITE;
PROSITE;
Cell adhe
                                                                                                                                                                                                                                                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE=95073006; PubMed=7982033; Tanihara H., Sano K., Heimark R.L.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Biochem. J. 349:159-167(2000).
DOMAIN
TRANSMEM
DOMAIN
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DOMAIN
                                                                                                                                                                                                                                                                 MIM;
                                                                                                                                                                                                                                                                                  EMBL; L34060; AAA35628.1; ALT_HSSP; P15116; INCJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            in nervous tissue.";
Cell Regul. 2:361-270(1991).

-!-FUNCTION: Cadherins are calcium dependent cell adhesion proteins.
-!- They preferentially interact with themselves in a homophilic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=91283540;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Fetal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE OF 294-799 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SEQUENCE OF 7-799
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens (Human)
                                                                                                                                                                          PRINTS; PR00205; CA; SMART; SM00112; CA;
                                                                                                                                                                                                  Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin_C_t
                                                                                                                                                                                                                                                     MIM; 603008; -.
GO; GO:0007155; P:cell adhesion;
                                                                                                                                                                                                                                                                                                                    EMBL; AB035305; BAA87419.1;
                                                                                                                                                                                                                                                                                                                                                or send an email to license@isb-sib.ch).
                                                                                                                                                                                     PRINTS;
                                                                                                                                                                                                                          InterPro; IPR002126; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             sorting of heterogeneous cell types.
SUBCELULIAR LOCATION: Type I membrane protein.
TISSUB SPECIFICITY: Mainly expressed in brain.
nerve cell lines, such as retinoblasts, glioma
                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 manner in connecting cells; cadherins may thus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   neuroblasts.
                                                                                                                                    adhesion;
                                                                                                                                                                                                                                                                     603008;
                                                                                                                                                                                                                                                                                HGNC: 1767;
                                                                                                                                                PS00232; CADHERIN_1;
PS50268; CADHERIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sano K., Tanihara H.; of the cadherin family:
    1
62
622
643
168
277
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       brain;
                                                                                                                                    Glycoprotein;
                                                                                                                                                                                     CADHERIN.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PubMed=2059658;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FROM N.A.
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799
621
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167
276
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                                                                                                                                                                                                    C term;
 EXTRACELLULAR
POTENTIAL.
CYTOPLASMIC (P
CADHERIN 1.
CADHERIN 2.
CADHERIN 3.
                                                                               POTENTIAL.
CADHERIN-8.
                                                                                                                                     Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                        _INIT
                                                                                                                                                 σω
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   evidence for eight new cadherins
                                                                      (POTENTIAL).
                                                                                                                                      Calcium-binding; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Found cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     contribute
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         evidence for
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RESULT
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                                                                                                                                                                                                                                                                                                  bev. Dyn. 208:178-189 (1997).

i- PUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types.

SUBCELLULAR LOCATION: Type I membrane protein.

SUBCELLULAR IOCATION: Type I membrane protein.
                                               PROSITE; PS00232; CADHERIN 1; 3.
PROSITE; PS50268; CADHERIN 2; 5.
Cell adhesion; Glycoprotein; Tra
                                                                                   PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 5.
                                                                                                          InterPro; IPR002126; Cadherin.
InterPro; IPR00223; Cadherin_C_term.
Pfam; PF00028; cadherin_C_term; 1.
Pfam; PF01049; Cadherin_C_term; 1.
                                                                                                                                                                      EMBL; X95600; CAA6.
HSSP; P15116; INCJ
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                                                                                                                                                           MGD; MGI:107434; Cdh8.
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15-UUL-1998 (Rel. 36, Created)
15-UUL-1998 (Rel. 36, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=Swiss Webster / NIH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mus musculus (Mouse).
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DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                     Korematsu K., Redies C.; "Restricted expression of cadherin-8 in segmental and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=10090,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Cadherin-8 precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=97174321; PubMed=9022055;
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495
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57
188
463
473
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544
355
647
799 AA;
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 1
30
62
                                                                                                                                                                                   CAA64857.1; -.
                                            Glycoprotein;
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Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              53.3%;
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N-S HO (IN REF. 2 AND 3).
                                          Transmembrane; Calcium-binding; Repeat;
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CADHERIN-8
          POTENTIAL.
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Pred. No. 3.8;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        799
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RESULT 7
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Matches 7
          Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_ti
                                                                                            use by non-profit institutions as long a modified and this statement is not removed. entities requires a license agreement (See ) or send an email to license@isb-sib.ch).
                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboratic between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on it
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CAD8_RAT STANDARD; PRT; 799 AA. 054800; 054801; 054801, 16-OCT-2001 (Rel. 40, Created) 16-OCT-2001 (Rel. 40, Last sequence update) 28-FEB-2003 (Rel. 41, Last annotation update)
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CARBOHYD
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CARBOHYD
                                                   EMBL; AB010436; BAA24452.1;
EMBL; AB010437; BAA24453.1;
HSSP; P15116; 1NCJ.
                                                                                                                                                                                                                                                                                           "Molecular properties and chromosomal location of cadherin-8.", Genomics 48:186-194(1998).
-!- FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic
                                                                                                                                                                                                                                                                                                                                  TISSUE=Brain;
MEDLINE=98190518; PubMed=9521872;
Ohata S., Tanihara H., Rochelle J.M., Seldin
                           InterPro; IPR002126; Cadherin_C_term.
                                                                                                                                                                                   IsoId=054800-2; Sequence=VSP_000638,
-!- SIMILARITY: Contains 5 cadherin domain
                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CDH8.
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                                                                                                                                                                                                                                                                                                                                                                                                        NCBI_TaxID=10116;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOMAIN
                                                                                                                                                                                                                                                   manner in connecting cells; cadherins may sorting of heterogeneous cell types. SUBCELLULAR LOCATION: Type I membrane prot ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                           Name=2;
                                                                                                                                                                                                                                        Event=Alternative splicing; Named isoforms=2;
                                                                                                                                                                                                                   IsoId=054800-1; Sequence=Displayed;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         63 WVWNQMFVLEE
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Rodentia;
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63.6%;
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CADHERIN
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I membrane protein
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                                                                                                        http://www.isb-sib.ch/announce/
                                                                                                                                                                                           VSP_000639;
                                                                                                                                                                                                                                                                                                                                                                                                                Muridae; Murinae; Rattus.
                                                                                                                 Usage
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PROSITE; PS00232; CADHERIN 2; 5.

PROSITE; PS00268; CADHERIN 2; 5.

Cell adhesion; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Signal; Alternative SIGNAL 1
                                                                                              STRAIN-White leghorn;
Wei J., Dong X.R., Topouzis S., Zimmer W.E., Broders F., Thiery J.P.,
Koteliansky V., Majesky M.W.;
Molecular cloning of chick cadherin 11 and its expression during
smooth muscle differentiation and formation of the tunica media.";
submitted (MAR-1998) to the EMBL/GenBank/DDBJ databases.
-i- FUNCTION; Cadherins are calcium dependent cell adhesion proteins.
They preferentially interact with themselves in a homophilic
manner in connecting cells; cadherins may thus contribute to the
sorting of heterogeneous cell types.
-i- SUBCELLULAR LOCATION: Type I membrane protein (Potential).
-i- SIMILARITY; Contains 5 cadherin domains.
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                                                   This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its
                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; (Archosauria; Aves; Neognathae;
                                                                                                                                                                                                                                                                                                     Gallus gallus (Chicken).
                                                                                                                                                                                                                                                                                                                          Cadherin-11
          use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                         NCBI_TaxID=9031;
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Neognathae; Galliformes; Phasianidae; Phasiani
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/FTId=VSP_000639.
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SMART; SM00112; CA.5.

PROSITE; PS00232; CADHERIN 1;

PROSITE; PS50269; CADHERIN 2;
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InterPro; IPR000233; Cadherin_C_term
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                                                                                                                                                                                                                                                                                            MEDIINE-95073006; PubMed-7982033;
Tanihara H., Sano K., Heimark R.L., St John T., Suzuki S.;
"Cloning of five human cadherins clarifies characteristic features of cadherin extracellular domain and provides further evidence for two structurally different types of cadherin,";
Cell Adhes. Commun. 2:15-26(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae
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TISSUB-Fetal brain;
MEDLINE-91283540; PubMed-2059658;
Suzuki S., Sano K., Tanihara H.;
"Diversity of the cadherin family
                                                                                                                                                                                                      SEQUENCE .....
TISSUE-Osteosarcoma;
TISSUE-Osteosarcoma;
Tissue-Osteosarcoma;
Tissue-Osteosarcoma;
Tissue-Osteosarcoma;
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                                                                                                                                        "Molecular cloning of cadherin family
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269:12092-12098(1994).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
                                                                                                                                              osteoblasts.";
                                                                                                                                                                                                                                                            2).
            evidence
                                                                                                                                                                                                    Kikuno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      D (GLCNAC. . .)
D (GLCNAC. . .)
D (GLCNAC. . .)
                                                                                    L)
                                                                                                                                                                of OB-cadherin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (POTENTIAL).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hominidae;
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                                                                                                                                                                                                    R.,
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          for eight
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          new cadherins
                                                                                                                                                                  a new member
                                                                                                                                                                                                      A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (OSF-4).
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                                                                                                                                            DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                                                                        GO; GO:0016021; C:integral to membrane; NAS.
GO; GO:0007156; P:homophilic cell adhesion; NAS.
GO; GO:0001503; P:ossification; NAS.
InterPro; IPR0002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AF060370; AADD27755.1; ---
EMBL; AF060369; AADD27755.1; JOINED.
EMBL; AF060370; AADD27756.1; --
EMBL; AF060389; AAD27756.1; JOINED.
PIR; A38992; A38992.
HSSP; P15116; 1NCJ.
                                                                                                                                                                      TRANSMEM
                                                                                                                                                                                                                                                     PROSITE; PS00232; CADHERIN 1; 3. PROSITE; PS50268; CADHERIN 2; 5.
                                                                                                                                                                                                                                                                               PRINTS; PR00205; CADHI SMART; SM00112; CA; 5
                                                                                                                                                                                                                                                                                                      Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_term;
                                                                                                                                                                                                                                                                                                                                                                                                       Genew; HGNC:1750; CDH11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              the European Bioinformatics Institute. There are no restrictions use by non-profit institutions as long as its content is in modified and this statement is not removed. Usage by and for contents
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Kools P.F.J., Hogendoorn P.C.W., Bovee J.V.M.G., Van Roy F.;
"Alternative cadherin-11 transcripts encoding truncated adhesion
molecules are detectable in both human cancer and normal cells.";
Submitted (Apr.1998) to the EMBL/GenBank/DDBJ databases
-!- FUNCTION: Cadherins are calcium dependent cell adhesion proteins.
They preferentially interact with themselves in a homophilic
manner in connecting cells; cadherins may thus contribute to the
sorting of heterogeneous cell types.
-!- SUBCELLULAR LOCATION: Type I membrane protein.
-!- ALTERNATIVE PRODUCTS:
                                                                                 CARBOHYD
                                                                                            DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           entities requires a license agreement (Son send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TISSUE SPECIFICITY: Expressed mainly in brain but also other tissues. Expressed in neuroblasts.

SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SWISS-PROT entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Event=Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ; L34056;
; D21254;
; D21255;
                                                                                                                                                                                                                                                                                                                                                                                             600023;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      IsoId=P55287-1; Sequence=Displayed;
                                                                                                                                                                                                                                Alternative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     OF 600-668 FROM N.A. (ISOFORMS 1 AND 2).
                                                        2:261-270(1991).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          BAA04798.1; -.
BAA04799.1; -.
                                                                                                                                                                                                                                           Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA35622.1; -.
                                                                                                                                                                                                                                                                                            CADHERIN.
                                                        53
796
617
640
796
159
268
383
486
612
540
                                                                                                                                                                                                                 s splicing.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               splicing; Named isoforms=2;
N-LINKED (GLCNAC. ..) (POTENTIAL).

N-LINKED (GLCNAC. ..) (POTENTIAL).

VIVVLEVILROCKEPLIVFEREDVRENTITYDDEGGGEED
TEAFFIATLQNEDGINGFIPR -> GCPSLMEPPSPREDMR
LLYLGFQLMLFSYVKYNRRFCLLGVFIKLPFLYVVATESPT
TLTSL (in isoform 2).

/FTId=VSP_000640
                                                                                                   CYTOPLASMIC CADHERIN 1. CADHERIN 2. CADHERIN 3. CADHERIN 4.
                                                                                                                                                                 EXTRACELLULAR POTENTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (See http://www.isb-sib.ch/announce/
                                                                                                                                                     (POTENTIAL)
                                                                                                                                                                              (POTENTIAL).
                                                                                                                                                                                                                                       Calcium-binding; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     a collaboration
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no
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RESULT 10
RC TISUE-Olfactory epithelium;

RX MEDLINE-22388257; pubMed=12477932;

RM Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,

RA Strausberg R.L., Feingold E.A., Shenmen C.M., Schuler G.D.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

ROW, Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

ROW, Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,

RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,

Royal S.J., Moores M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Carninci P., Prange C.,

RA Brownstein M.J., Ugdin T.B., Toshiyuki S., Carninci P., Prange C.,

RA Brownstein M.J., McKernan K.J., Malek J.A., Gunaratne P.H.,

RA Babas S.F., Loquellano N.A., Peters G.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,

RA Pahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,

Rhiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,

Rhiting M., Madan A., Touchman J.W., Green E.D., Dickson M.C.,
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Best Local S
Matches 6
                                                                                                                                                                                                                                                                                                                                                                                                      Miyazaki T., Matsunami H., ILLUGE L.,
Miyazaki T., Takeichi M.;
"Cadherin-11 expressed in association with mesenchymal morphogenesis
"Cathe head, somite, and limb bud of early mouse embryos.";
                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=C57BL/6; TISSUE=Calvaria;
MEDLINE=94216322; PubMed=8163513;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P55288;
01-OCT-1996 (Rel. 34, Created)
01-OCT-1996 (Rel. 34, Last seq
15-MAR-2004 (Rel. 43, Last ann
15-MAR-2004 (Rel. 43) Last ann
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           "Cloning and expression cadherin.";
                                                                                                                                                                                                                                                                                               "Molecular cloning of cadherin family
                                                                                                                                                                                                                                                                                                                             Amann E
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDLINE=95269887;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CADB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mus musculus (Mouse).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=95269886; PubMed=7750649;
Hoffmann I.H., Balling R.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                 Chem.
                                                                                                                                                                                                                                                    FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          169:337-346(1995)
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275
340
373
471
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                                                                                                                                                                                                                                                                             ning and characterization of OB-cadherin, mily expressed in osteoblasts."; 269:12092-12098(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=7750650;
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54.5%;
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Last annotation update)
(Osteoblast-cadherin) (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        analysis
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RL -> SV (IN REF. 2).
M -> I (IN REF. 2).
E -> K (IN REF. 2).
S -> A (IN REF. 2).
S -> K (IN REF. 2).
O -> K (IN REF. 2).
Q -> K (IN REF. 2).
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Pred. No. 16;
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                       Tsujimura A., Kudo
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Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.; "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                             PIR; A53584;
PIR; I48277;
PIR; I49556;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Munro S.B., Blaschuk O.W.; "A comprehensive survey of the cadherins expressed in the fetal, immature, and adult mice utilizing the polymerase \epsilon
 DOMAIN
CARBOHYD
CARBOHYD
CONFLICT
CONFLICT
CONFLICT
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DOMAIN
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GO; GO:0005737; C:cytoplasm; IDA.
GO; GO:0005886; C:plasma membrane; IDA.
InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_C_term.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL;
EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               reaction.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=C57BL/6; TISSUE=Testis;
MEDLINE=97033837; PubMed=8879495;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
                                                                            DOMAIN
DOMAIN
DOMAIN
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SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DEVELOPMENTAL STAGE
                                                                                                                                                                                                                                        PROSITE; PS00232; CADHERIN_1; 3. PROSITE; PS50268; CADHERIN_2; 5.
                                                                                                                                                                                                                                                                             PRINTS;
                                                                                                                                                                                                                                                                                         Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_t
                                                                                                                                                                                      PROPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SORTING of heterogeneous cell types.
SUBCELULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Selectively expressed in osteoblastic cell
lines, precursor cell lines of osteoblasts, and primary
osteoblastic cells from calvaria, as well as in lung, testis, and
brain tissues at low levels.
DEVELOPMENTAL STAGE: In the testis, expression is highest in fetal
gonad and decreases 8-fold in newborn.
SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1. Reprod. 55:822-827(1996).
FUNCTION: Cadherins are calcium dependent cell adhesion proteins
They preferentially interact with themselves in a homophilic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           manner in connecting cells; cadherins may thus contribute to the
                                                                                                                                                                                                                                                                                                                                                                                                                                    X77557; CAA54674.1; -. D31963; BAA06730.1; -. D21253; BAA04797.1; -. BC046314; AAH46314.1; -.
                                                                                                                                                                                                                                                                                                                                                                                   P15116; 1NCJ
                                                                                                                                                                                                                                                                  ; PR00205; CA;
SM00112; CA;
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641
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I49556.
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54
54
                                                                                                                                                                                                                           Glycoprotein;
                                                                                                                                                                                                                                                                    CADHERIN.
  CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
CADHERIN 5.
N-LINKED (GLCNAC...
N-LINKED (GLCNAC...
E -> D (IN REF. 1).
T -> L (IN REF. 2).
D -> N (IN REF. 2).
                                                                                                                                                                                                                             Transmembrane; Calcium-binding; Repeat;
                                                                                                                      CYTOPLASMIC CADHERIN 1.
                                                                                                                                                POTENTIAL.
                                                                                                                                                             EXTRACELLULAR
                                                                                                                                                                            CADHERIN-11.
                                                                                                                                    (POTENTIAL)
                                                                                                                                                              (POTENTIAL).
                                                       (POTENTIAL)
                                           (POTENTIAL)
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RESULT 11
CADM_MOUSE
ID CADM M
AC Q9WTP5
DT 28-FEB
DT 28
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SEQUENCE
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28-FEB-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Kitajina K., Koshimizu U., Nakamura T.;

"Expression of a novel type of classic cadherin, PB-cadherin in developing brain and limb buds.";

Dev. Dyn. 215:206-214(1999).

-!- FUNCTION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. PB-cadherins may have a role in the morphological organization of pituitary gland and brain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9WTP5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CADM MOUSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=99326347; PubMed=10398531;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=10090;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cadherin-22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   28-FEB-2003
                                                                                                                                                                                                                                                                                                                         use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               STRAIN=ICR; TISSUE=Brain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.,
                                                                                                                                                                                                                                                                                                  or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                       between
                                                  Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin C t
PRINTS; PR00205; CADHERIN.
SMART; SM00112; CA; 5.
                                                                                                                                                   HSSP; P15116; 1NCJ.
InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_
                                                                                                                                                                                                                                                                                                                                                                    S SWISS-PROT entry is copyright. It is produced through a collaboration ween the Swiss Institute of Bioinformatics and the EMBL outstation - European Bioinformatics Institute. There are no restrictions on its by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SUBCELLULAR LOCATION: Type I membrane protein.
TISSUE SPECIFICITY: Predominantly expressed in brain. Abundant olfactory bulb, cerebrum, and cerebellum, less in pons, medulla and spinal cord, Low expression in heart. No expression in lung and spinal cord, Low expression in heart.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   placenta.

DEVELOPMENTAL STAGE: Expressed at 9.5 dpc onwards.

brain (telencephalic vesicles and isthmus), spinal

buds (in the zone of polarizing activity). At 14.5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     olfactory bulb and cerebellum. INDUCTION: Down-regulated by thyroid hormone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           cissnes
                                                                                                                                                                                                                          , AB019618; BAA34426.1; MGI:1341843; Cdh22.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           55
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     PS00232; CADHERIN_
PS50268; CADHERIN_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    spleen, kidney,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       796
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(Rel. 41, Last seq
(Rel. 41, Last ann
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  CADHERIN_1; CADHERIN_2;
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P -> Q (IN REF. 2).
L -> P (IN REF. 2).
OD584D24641DD529 C
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No expression in lung,
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RESULT 12
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Best Local S
Matches 6
                This
                                                                                                                                                                                                                                                                                  Matsumoto K., Nakamura T.;
"Molecular cloning and characterization of of the cadherin family, PB-cadherin.";
J. Biol. Chem. 271:11548-11556(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARBOHYD
CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                    Sugimoto K., Honda S.,
                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A. (ISOFORMS 1 AND 2), AND STRAIN=Wistar; TISSUE-Brain, and Pituitary; MEDLINE=9621232; PubMed=8626716;
                                                                                                                                                                                                                                                                                                                                                                                                                                              063315; 063561;
28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence up
28-FEB-2003 (Rel. 41, Last annotation
Cadherin-22 precursor (PB-cadherin)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOMAIN
CARBOHYD
                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
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Mammalia; Eutheria;
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SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cell adhesion;
                             Note=No experimental confirmation available;
Note=No experimental confirmation available;
TISSUE SPECIFICITY: Strongly expressed in the pituitary gland the brain (in the inner granular and glomerular layers of the olfactory bulb, anterior olfactory nucleus, primary olfactory cortex, Purkinje cell layer of cerebellum, and pineal gland).

expression in lung and heart. No expression in submandibular gland, thymus, liver, spleen, adrenal, and kidney.

DEVELOPMENTAL STAGE: Expressed strongly in fetal brain.

SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                             iol. Chem. 271:11548-11556(1996).
FUNCTION: Cadherins are calcium dependent cell adhesion prote They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to sorting of heterogeneous cell types. PB-cadherins may have a in the morphological organization of pituitary gland and brain
                                                                                                                                                                                              SUBCELLULAR LOCATION: Type ALTERNATIVE PRODUCTS:
                                                                                                                                                                                  Event=Alternative splicing; Named
SWISS-PROT entry is copyright. It is produced through a c
                                                                                                                                                              IsoId=Q63315-1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2 WIWNOMHIDEE
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Rodentia;
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                                                                                                                                                           Sequence=Displayed;
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(GLCNAC...
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Best Local
                                                                Katafiasz B.J., Nieman M.T., Wheeloc: "Characterization of cadherin-24, a : II cadherin.";
J. Biol. Chem. 278:27513-27519 (2003)
                                                                                    MEDLINE=22753805; PubMed=12/09±10,
Katafiasz B.J., Nieman M.T., Wheelock M.J.,
"Characterization of cadherin-24, a novel a
                                                                                                                                                                                                                                                                                                                Q86UPO; Q86UPO; Q9NT84;
15-MAR-2004 (Rel. 43, Created)
15-MAR-2004 (Rel. 43, Last sequence update)
15-MAR-2004 (Rel. 43, Last amotation updat
                                                                                                                                                                                                                                                                                                                                                                                           CADO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CARBOHYD
CARBOHYD
VARSPLIC
 MEDLINE=22887296;
Clark H.F., Gurney
                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DOMAIN
TRANSMEM
DOMAIN
                                    SEQUENCE FROM N.A.
                                                                                                                                                                                                              NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                      CDH24 OR CDH11L.
                                                                                                                                                                                                                                                                                                   Cadherin-24 precursor (UNQ2834/PRO34009).
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DOMAIN
                                                                                                                                                              CATENINS
                                                                                                                                                                                 SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00232; CADHERIN 1; 2.
PROSITE; PS50268; CADHERIN 2; 5.
Cell adhesion; Glycoprotein; Transmembrane; Calcium-binding; Repeat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           the European Bioinformatics Institute. The use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See lor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VARSPLIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00205; CADHERIN. SMART; SM00112; CA; 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARBOHYD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR002126; Cadherin.
                                                                                                                                                                                                                                                                                                                                                                                             HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             D83349; BAA11895.1;
P15116; INCJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              D83348; BAA11894.1;
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                                                                                                                                                                             FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ÃĀ,
PubMed=12975309;
Y A.L., Abaya E.,
                                      (ISOFORM 2)
                                                                                                                                                                             (ISOFORMS 1
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N-LINKED (GLCNAC. ...) (POTENT!
N-LINKED (GLCNAC. ...) (POTENT!
NDEGGGEQDTBAYDMSALRSLYDFGEL ->
NKEDHQCPASISLGFKP (in isoform 2
/FTId=VSP_000643.
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CYTOPLASMIC
CADHERIN 1.
CADHERIN 2.
CADHERIN 3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CADHERIN 2.
CADHERIN 3.
CADHERIN 4.
CADHERIN 5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 45;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Missing
                                                                                                                                                                                                                             Craniata; Vertebrata; Catarrhini; Hominidae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FTId=VSP 000644
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                                                                                                                                                                             AND
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                     update)
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                                                                                                                                                                           FUNCTION,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB
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                                                                                                     alternatively
                                                                                                                                                                                                                               Hominidae; Homo
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as its content
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Baldwin
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                                                                                                                      K.R.;
                                                                                                                                                                                                                                               Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (POTENTIAL)
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                                                                                                     spliced type
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Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P. Baton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S., Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J., Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Scheenfeld J., Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A., Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.-H., Yansura D., Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
                                                                                                                                                                                                                                                                                                                                                                                                                                    This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               bioinformatics assessment.";
Genome Res. 13:2265-2270(2003).
           CARBOHYD
CARBOHYD
                                                                                                                    DOMAIN
TRANSMEM
                                                                                                                                                                                                                                                                                                                                                                                                               entities requires a license agreement (S or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Submitted (JAN-2000) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Blum
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
                                                   DOMAIN
DOMAIN
DOMAIN
DOMAIN
                                                                                                                                                                                                                                                                 InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin. C_term.
Pfam; PF00028; cadherin; 5.
Pfam; PF01049; Cadherin. C_term; 1.
                                                                                                                                                                                                                                         SMART;
                                      DOMAIN
                                                                                                                                              CHAIN
                                                                                                                                                                                                                                                    PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      mH., Bauersachs S., Mewes H.-W., Gassenhuber J., Wiemann S.; mitted (JAN-2000) to the EMBL/GenBank/DDBJ databases. FIUCCION: Cadherins are calcium dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. Cadherin-24 mediate strong cell-cell adhesion.

SUBCELLULAR LOCATION: Type I membrane protein (Potential).

ALTERNATIVE PRODUCTS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SUE=Testis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Note=No experimental confirmation available; SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Name=1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Event=Alternative splicing; Named isoforms=3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       secreted protein discovery initiative rt to identify novel human secreted and
                                                                                                                                                                                                                                                                                                                    T46418; T46418.
W; HGNC:14265; CDH24.
                                                                                                                                                                                                                                                                                                                                              AY260900; AAP20590.1; -. AY260901; AAP20591.1; -. AY358199; AAQ88566.1; -. AL137477; CAB70758.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       IsoId=Q86UP0-2; Sequence=VSP_008717
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   IsoId=Q86UP0-1; Sequence=Displayed;
                                                                                                                                                                                                                                        ; PR00205; CAI
SM00112; CA;
                                                                                                                                 Multigene
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21
45
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                                                                                                                                                                                                 PS00232; CADHERIN_1; 2.
PS50268; CADHERIN_2; 5.
esion; Glycoprotein; Transmembrane;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Synonyms=Short form;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synonyms=Long form;
 642
663
151
151
260
375
517
446
548
                                                                                                                                                                                                                                                    CADHERIN.
                                                                                                                                                                                     family;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (ISOFORM 3).
 819
662
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517
630
446
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44
                                                                                                                                                                                      Alternative splicing.
N-LINKED
N-LINKED
N-LINKED
                                                                             POTENTIAL.
CYTOPLASMIC
CADHERIN 1.
CADHERIN 2.
                                        CADHERIN
CADHERIN
CADHERIN
                                                                                                                                   EXTRACELLULAR
  (GLCNAC. . . ) (GLCNAC. . .
                                        5 4 W 2 F
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ive (SPDI), a large-scale
and transmembrane protein
                                                                                                           (POTENTIAL)
                                                                                                                                      (POTENTIAL)
                                                                                                                                                                                                     Calcium-binding; Repeat;
             (POTENTIAL).
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RESULT 14
CADM_HUMAN
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RA Deloukas P., Matthews L.H., Ashurst J., Babbage A.K., Bagguley C.L.,
RA Bailey J., Barlow K.F., Bates K.N., Beard L.M., Beare D.M.,
RA Beasley O.P., Bird C.P., Blakey S.E., Bridgeman A.M., Brown A.J.,
RA Beasley O.P., Bird C.P., Blakey S.E., Bridgeman A.M., Brown A.J.,
RA Buck D., Burrill W.D., Butler A.P., Carder C., Carter N.P.,
RA Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R.,
RA Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R.,
RA Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R.,
RA Clegg S., Cobley V.E., Collier R.E., Dhami P.D., Dunn M.,
RA Clegg S., Cobley V.E., Collier R.E., Connor R.E., Corby N.R.,
RA Huckle E., Hunt A.R., Hunt S.E., Jekos M.N.D., Gwilliam R., Hall R.E.,
RA Huckle E., Hunt A.R., Hunt S.E., Jekos M.N.D., Gwilliam R., Howden P.J.,
RA Hammond S., Harley J.L., Heath P.D., Ho S., Holden J.L., Howden P.J.,
RA Kay M.P., Kimberley A.M., King A., Knights A., Laird G.K., Lawlor S.,
RA Kay M.P., Kimberley A.M., King A., Knights A., Laird G.K., Lawlor S.,
RA Marsh V.L., Martin S.L., McConnachie L.J., McLay K., McMurray A.A.,
RA Milne S.A., Mistry D., Moore M.J.F., Mullikin J.C., Nickerson T.,
RA Milne S.A., Mistry D., Moore M.J.F., Mullikin J.C., Nickerson T.,
RA Rice C.M., Ross M.T., Scott C.E., Sehra H.K., Shownkeen R., Sims S.,
RA Skuce C.D., Smith M.L., Soderlund C., Steward C.A., Sulston J.E.,
RA Whitehead S.L., Whittaker P., Williams D.M., Williams S.A.,
Whitehead S.L., Whittaker P., Willey D.L., Williams S.A.,
RA Whitehead S.L., Whittaker P., Williams S.A.,
Williams L., Williams S.A.,
RA Rocers J., Rabbard T., Durbin R.M., Bentley D.R., Beck S.,
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SEQUENCE
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Yu W., Sarginson J., Gibbs R.A.;
Submitted (NOV-1997) to the EMBL/GenBank/DDBJ databases.

-I-FUNCTION: Cadherins are calcium dependent cell adhesion proteins.

-Ihey preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. PB-cadherins may have a role sorting of manner in connecting cells types.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Bukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CADM HUMAN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE=21638749; PubMed=11780052;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             28-FEB-2003 (Rel. 41, 28-FEB-2003 (Rel. 41,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                           Rogers
                                                                                                                                                      SEQUENCE
                                                                                                                                     TISSUE-Brain;
                                                                                                                                                                                           Nature
                                                                                                                                                                                                            The DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         46 WVWNQFFVIEE
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                                                                                                                                                                                           NA sequence and com
414:865-871(2001).
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                                                                                                                                                                                                            and comparative
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Missing (in isoform 3).

/FTId=VSP 008718.

/FTId=VSP 008718.

EGTIHTAAPLDREARAHNLTVLATELGWSWGPERGWVPLL
VAEWSAPAAPPORSPYGSAVGIPQ -> MNIVCTWYCSIHS
ATLFSTCTLHAXFMCFLCMLYXASCGIHAHAPHMLRVNCVVC
VWRVCFGVLPS (in isoform 3).

/FTId=VSP 008719.

MW; 9083034F18BA7E4A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                analysis
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                                                                                                                                                                                                                of human chromosome 20.";
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RESULT 15
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Best Local S
Matches 6
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Q90763;
                                            STRAIN=White leghorn;
MEDLINE=95309115; Publ
Nakagawa S., Takeichi
                                                                                                                                                           Cadherin-7 precursor.
                                                                                                                                                                                                                                                                                                                                                         CARBOHYD
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                     CHAIN
DOMAIN
TRANSMEM
DOMAIN
            Nakagawa S., Takeichi M.;
"Neural crest cell-cell adhesion controlled by sequential and subpopulation-specific expression of novel cadherins.";
Development 121:1321-1332(1995).
                                                                                                      Gallus gallus (Chicken)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Signal.
SIGNAL
                                                                              SEQUENCE
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                                                                                                 NCBI_TaxID=9031;
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SMART; SM00112; CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               use by non-profit institutions as long a modified and this statement is not removed. entitles requires a license agreement (See hor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                             DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PROSITE; PS00232; CADHERIN 1; PROSITE; PS50268; CADHERIN 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Genew; HGNC:13251;
HSSP; P15116; 1NCJ.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin C t
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR002126; Cadherin.
InterPro; IPR000233; Cadherin_
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   EMBL; AF035300;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             tissues (By similarity).
-!- SUBCELLULAR LOCATION: Type I membrane protein (By similarity).
-!- SIMILARITY: Contains 5 cadherin domains.
       FUNCTION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AL031687;
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     Cadherins
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                                                      orn; TISSUE=Brain;
PubMed=7540531;
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Last annotation update)
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  calcium dependent cell
                                                                                                                                                                                                                                                                                                             2;
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Pred. No.
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CADHERIN 3.
CADHERIN 4.
CADHERIN 5.
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CYTOPLASMIC
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                                                                                                                                                                                                                785 AA
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                                                                                                                                                                                                                                                                                                             ω,
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adhesion proteins
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(POTENTIAL)
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Search completed: July 29, Job time: 7.66667 secs

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Matches 6
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                                                                                                                                                                                                                                             DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pfam; PF00028; cadherin; 5. Pfam; PF01049; Cadherin_C_t
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PIR; I50180; I50180.
HSSP; P15116; INCH.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Cell adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PROSITE; PS00232; CADHERIN_1; PROSITE; PS50268; CADHERIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          InterPro; IPR002126;
InterPro; IPR000233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIMILARITY: Contains 5 cadherin domains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        manner in connecting cells; cadherins may thus sorting of heterogeneous cell types.
SUBCELLULAR LOCATION: Type I membrane protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 They preferentially interact with themselves in a homophilic
  49
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                                                                             6; Conserv
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WVWNQFFVLEE
                                   WIWNOMHIDEE 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   requires a license agreement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              email to license@isb-sib.ch).
                                                                                                                                                             785
                                                                                                                                                                                                                        154
263
378
482
                                                                             Conservative
                                                                                                                                                           AA;
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                                                                                                                                                                                                   47.8%;
                                                                                                                                                           87171 MW;
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                                                                                              Score 44;
Pred. No.
                                                                                                                                                                                                                                         CADHERIN CADHERIN
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                                                                                                                                                                            N-LINKED (GLCNAC. .
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Transmembrane;
                                                                                                                                                                                                                        CADHERIN
                                                                                                                                                                                                                                                                                 CADHERIN
                                                                                                                                                                                                                                                                                                    CADHERIN
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                                                                       Mismatches
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                                                                                                23;
                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                     (POTENTIAL).
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43.5	43.5	43.5	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6
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G64106	C72425	AI1678	T27935	S57242	A88852	T20978	T20971	I50178	137016	I52701	S11161	T16338	AG2892	B97668	G90607
3-isopropylmalate			hymothetical macta	twitchin [cimilari	protein unc-22 (im	hypothetical prote	3		ı		(D				hypothetical prote

A;Note: sequence extracted from NCBI backbone (NCBIP:113040, NCBIP:113047, C;Comment: Cadherins mediate calcium-dependent intercellular adhesion, and are thought to C;Genetics: A;Gene: GDB:CDH5 A;Cross-references: GDB:134230; OMIM:601120 A;Map position: 16922.1-16922.1 C;Superfamily: cadherin; cadherin repeat homology C;Keywords: calcium binding; cell adhesion; duplication; glycoprotein; transmembrane pro F;1-25/Domain: signal sequence #status predicted <sig>F;26-47/Domain: propeptide #status predicted <mat>F;48-794/Product: cadherin f #status predicted <ext>F;48-794/Product: cadherin status predicted <ext>F;50-15/Domain: cadherin repeat homology <cr1>F;48-794/Domain: cadherin repeat homology <cr3>F;515-479/Domain: cadherin repeat homology <cr3>F;515-479/Domain: cadherin repeat homology <cr3>F;515-479/Domain: cadherin repeat homology <cr4>F;481-587/Domain: cadherin repeat homology <cr5>F;594-620/Domain: cadherin repeat homology <cr5-f;594-620 <cr5-f;594-620="" cadherin="" domain:="" homo<="" homology="" repeat="" th=""><th>R;Suzuki, S.; Sano, K.; Tanihara, M.: 1939833; FIDN:CAA5506.1; PID:g599834 Cell Regul. 2, 261-270, 1991 A;Title: Diversity of the cadherin family: evidence for eight new cadherins in nervous t A;Reference number: S24305; MUID:91283540; PMID:2059658 A;Roccession: S24305 A;Molecule type: mRMA A;Residues: 5-516, 'I',518-784 <suz- 48-60,'x',62,'x',64;108-116,'x',118-123;237-238,'x',240,'x',242-252.'x',254-254.<="" a="" a.;="" a43418;="" a;cross-references:="" a;reference="" a;residues:="" a;title:="" cell-cell="" contacts="" embl:x59796;="" endothelial-specific="" g.;="" houen,="" is="" m.;="" m.g.;="" marker="" membrane="" muid:92394977;="" nid:g639976;="" novel="" number:="" of="" pid:g29593="" pidn:caa42468.1;="" pigott,="" pisacane,="" pmid:1522121="" protein="" r.;="" r;lampugnani,="" raiteri,="" resnati,="" ruco,="" th=""><th>S othelial-specific; VE1996 #text_change 22. in-Padura, I.; Golay, rties of VE-cadherin</th></suz-></th></cr5-f;594-620></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr5></cr4></cr3></cr3></cr3></cr1></ext></ext></mat></sig>	R;Suzuki, S.; Sano, K.; Tanihara, M.: 1939833; FIDN:CAA5506.1; PID:g599834 Cell Regul. 2, 261-270, 1991 A;Title: Diversity of the cadherin family: evidence for eight new cadherins in nervous t A;Reference number: S24305; MUID:91283540; PMID:2059658 A;Roccession: S24305 A;Molecule type: mRMA A;Residues: 5-516, 'I',518-784 <suz- 48-60,'x',62,'x',64;108-116,'x',118-123;237-238,'x',240,'x',242-252.'x',254-254.<="" a="" a.;="" a43418;="" a;cross-references:="" a;reference="" a;residues:="" a;title:="" cell-cell="" contacts="" embl:x59796;="" endothelial-specific="" g.;="" houen,="" is="" m.;="" m.g.;="" marker="" membrane="" muid:92394977;="" nid:g639976;="" novel="" number:="" of="" pid:g29593="" pidn:caa42468.1;="" pigott,="" pisacane,="" pmid:1522121="" protein="" r.;="" r;lampugnani,="" raiteri,="" resnati,="" ruco,="" th=""><th>S othelial-specific; VE1996 #text_change 22. in-Padura, I.; Golay, rties of VE-cadherin</th></suz->	S othelial-specific; VE1996 #text_change 22. in-Padura, I.; Golay, rties of VE-cadherin
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R;Suzuki, S.; Sano, K.; Tanihara, H.
Cell Regul. 2, 261-270, 1991
A;Title: Diversity of the cadherin family: evidence for A;Title: Diversity of the cadherin family: evidence for A;Reference number: S24305; MUID:91283540; PMID:2059658
A;Accession: D38992
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Species: Homo sapiens (man)
C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 21-Jan-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Gene: GDB: CDH8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Residues: 1-793 <SUZ>
A;Cross-references: GB:L34060; NID:g506411; PIDN:AAA35628.1; PID:g506412
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                                                                                                                                                                                                                                                                                                                                                                                                                                                       hypothetical protein F26H9.1 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change C;Accession: T20872; T21443
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Cross-references: GDB:5822911
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Molecule type: mRNA
                                                                                                                                                                                                                  submitted to the EMBL Data Library, November 1996 A;Reference number: Z19422 A;Accession: T21443
                                                                                                                                                                                                                                                                                                                                                                                submitted to the EMBL Data Library, A; Reference number: Z19337
A; Accession: T20872
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                                                                                                                                                            A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-524 <WIZ>
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                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; translated from GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Sims, M.
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                                                                                                                                                                                                                                                                                          A;Cross-references: EMBL:Z75535; PIDN:CAA99829.1; GSPDB:GN00019; CESP:F26H9.
A;Experimental source: clone F14B4
                                                                                                                                                                                                                                                                                                                              A; Residues: 1-524 <WIL>
                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: DNA
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Keywords: calcium binding; cell adhesion; duplication;
163-269/Domain: cadherin repeat homology <CDH>
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                                                                                                                          :Cross-references: EMBL:281516; PIDN:CAB04206.1; Experimental source: clone F26H9
                                                                    Map position:
                                                                                                            Genetics:
                   Query Match
                                                                                           Gene: CESP:F26H9.1
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Local Similarity
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                                                       99/1;
                                                     136/1; 186/1; 228/3; 287/3; 346/1; 403/1; 449/3
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 52.2%;
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Pred. No. 6.2;
2; Mismatches
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Pred. No.
     Score 48;
Pred. No.
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5.8e-07;
     DB 2;
5.7;
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                      Length 524;
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RESULT

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A;Cross-references: A;Cross-references: A;Cross-references: A;Cross-references: A;Map position: 16q22.1-16q22.1
A;Map position: 16q22.1-16q22.1
C;Superfamily: cadherin; cadherin repeat homology cRL>
F;S6-159/Domain: cadherin repeat homology cR2>
--162-268/Domain: cadherin repeat homology cR3>
--162-268/Domain: cadherin repeat homology cR3>
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A38992
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A;Title: Diversity of the cadherin family:
A;Reference number: S24305; MUID:91283540;
A;Accession: A38992
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F;271-383/Domain: cadherin repeat
F;386-488/Domain: cadherin repeat
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A; Residues: 1-796 < SUZ>
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R;Suzuki, S.; Sano, K.; Tanihara,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 20-Aug-1999
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N;Alternate names: OB-cadherin, osteoblast
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148277
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A;Cross-references: GDB:512891; OMIM:600023
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                                                                                                                                                                                                                                                                                                                                                                 cadherin-11 - mouse
C;Species: Mus musculus (house mouse)
C;Date: 02-7ul-1996 #sequence_revision
C;Accession: I48277
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Dev. Biol. 169, 337-346,
                                                                                                                                     A;Gene: cad-11
C;Superfamily: c:
F;56-159/Domain:
                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 1-796 <RES>
A;Cross-references: EMBL:X77557; NID:g642796; PIDN:CAA54674.1; PID:g666071
                                                                                                                                                                                                                                                                             Dev. Biol. 169, 337-346, 1995
A;Title: Cloning and expression analysis of a novel mesodermally
A;Reference number: 148277; MUID:95269886; PMID:7750649
A;Accession: 148277
                                                                                                                                                                                                       A; Cross-references:
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Matches
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                                    WIWNOMHIDEE 12
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n repeat homology <CDH>
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Pred. No. 28;
2; Mismatches
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                                                                                      Score 45; DB
Pred. No. 28;
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probable serine/threonine-specific protein kinase (EC 2.7.1.-) T22A6.310 - Arabidopsis C;Datecles: Arabidopsis thaliana (mouse-ear cress) C;Datecles: 16-Jul.299 #sequence_revision 16-Jul-1999 #text_change 15-Oct-1999
                                                                                  A;Molecule type: DNA
A;Residues: 1-963 <BEV>
A;Cross-references: EMB
                                                                                                                                                     R;Bevan, M.; Zimmermann, W.; Grueneisen, A. submitted to the Protein Sequence Database, A;Reference number: Z16896
                                                                                                                                                                                             R;Bevan, M.;
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             A; Map position:
                                                                                                                                         A; Accession: T09911
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                                                                                                                                                                                                                                                                                                          RESULT 8
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F;56-159/Domain: cadherin repeat homology <CR1>
F;162-268/Domain: cadherin repeat homology <CR2>
                              A;Gene: ATSP:T22A6.310
                                                                 A; Experimental source:
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C;Superfamily: cadherin; cadherin repeat homology
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A53584
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A;Title: Molecular cloning and characterization of OB-cadherin, A;Reference number: A53584; MUID:94216322; PMID:8163513
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Accession: A53584
R;Okazaki, M.; Take
J. Biol. Chem. 269,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OB-cadherin precursor - mouse
C;Species: Mus musculus (house mouse)
C;Date: 07-Oct-1994 #sequence_revision 07-Oct-1994 #text_change 20-Jun-2000
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('Species: Mus musculus (house mouse)
C;Date: 02-Jul-1996 #sequence_revision
C;Accession: 149556
R;Kimura, Y.; Matsunami, H.; Inoue, T.;
Dev. Biol. 169, 347-358, 1995
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                                                                                                                                                                                                                                                                                                                                                                                                                                     6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WVWNQFFVIEE
                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cadherin repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                           EMBL:AL078637; GSPDB:GN00062; ATSP:T22A6.310 ce: cultivar Columbia; BAC clone T22A6
                                                                                                                                                                                                                                                                                                                                                                                                                                                  48.98;
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                                                                                                                                                                                                                                                                                                                                                                                                                                 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 45;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 homology <CDH>
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Pred. No. 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 2;
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                                                                                                                                                                                  R.; Bancroft,
                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      a new member of cadherin
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         morphogenesis in the head
                                                                                                                                                                                                                                                                                                                                                                                                                           ;
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                                                                                                                                                                                    I.; Mewes, H.W.; Ma
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F-cadherin
C;Species:
                                    I51638
                                                       RESULT
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11

African clawed frog Xenopus laevis (African

clawed

frog)

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C;Species: Gallus gallus (chicken)
C;Date: 21-Feb-1997 #sequence_revision 21-Feb-1997 #tex
C;Accession: I50180
R;Nakagawa, S; Takeichi, M.
Development 121, 1321-1332, 1995
A;Title: Neural crest cell-cell adhesion controlled by A,Fitle: Neural crest cell-cell adhesion controlled by A,Reference number: I50178; MUID:95309115; PMID:7540531
A;Accession: I50180
                                                                                                                                  F;156-262/Domain: cadherin repeat
                                                                                                                                                     A;Cross-references: GB:D42150; NID:g868000; PIDN:BAA07721.1; PID:g868001
C;Superfamily: cadherin; cadherin repeat homology
                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-785 < NAK>
                                                                                                                                                                                                                       A;Status: preliminary; translated
                                                                                                                                                                                                                                                                                                                                                                                    cadherin-7 -
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                                                                                                                                                                                                                                                                                                                                                                                                        I50180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Gene:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Molecule type: DNA
A; Residues: 1-500 < KUR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus. A;Reference number: A89758; MUID:21311952; PMID:11418146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; Experimental source: strain N315
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; Reference number: A89758; A; Accession: E89962
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               C.; Shiba, T.; Hattori, M.
Lancet 357, 1225-1240, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypothetical protein [imported] - Staphylococcus aureus (strain N315)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Introns: 286/3; 386/2; 434/3; C;Keywords: phosphotransferase;
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                                                                      Matches
                                                                                      Best
                                                                                                     Query Match
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Best Local
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                                2 WIWNOMHIDEE 12
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                                                                 Similarity 54. 6; Conservative
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WVWNQFFVLEE
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                                                                                 47.8%;
59
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41.7%;
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••
                                                                                             Score 44;
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Pred. No. 42;
3; Mismatches
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                                                                                 Pred. No.
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Pred. No.
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24;
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nue, R.; Kaito, C.; Sekimizu,
: Hiramatsu, K.
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A;Title: Xenopus F-cadherin, a novel member of the cadherin family of cell adhesion A;Reference number: 151638; MUID:96039533; PMID:7496627
A;Accession: 151638
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R; Espeseth, A.; Johnson, E.; Kintner, Mol. Cell. Neurosci. 6, 199-212, 1995
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C;Superfamily: cadherin; cadherin repeat homology
F;161-267/Domain: cadherin repeat homology <CR2>
                                                                                                                                                                                                                                                                           R;Selig, S.; Bruno, S.; Scharf, J.M.; Wang, C.H.; Vitale, E.; Gilliam, T.C.; Kunkel, L.M. Proc. Natl. Acad. Sci. U.S.A. 92, 3702-3706, 1995
A;Title: Expressed cadherin pseudogenes are localized to the critical region of the spin A;Reference number: I59372; MUID:95249541; PMID:7731968
A;Accession: I59372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: EMBL:U59325; NID:g1389852; PIDN:AAB02933.1; C;Superfamily: cadherin; cadherin repeat homology F;162-268/Domain: cadherin repeat homology <CDH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Status: preliminary; translated from GB/EMBL/DDBJA;Molecule type: mRNA
A;Residues: 1-790 <SHI>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R,Shibata, T.; Shimoyama, Y.; Gotoh, M.; Hirohashi, submitted to the EMBL Data Library, May 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cadherin-14 -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Reference number: H01584
A;Accession: G02678
A;Cross-references: GDB:596324
A;Map position: 5p13-5p14
C;Superfamily: cadherin; cadherin repeat homology
C;Superfamily: cadinerin; call adhesion; duplid
C;Keywords: calcium binding; cell adhesion; duplid
F;57-160/Domain: cadherin repeat homology <CR1>
F;163-269/Domain: cadherin repeat homology <CR2>
                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Homo sapiens (man)
C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 20-Aug-1999
C;Accession: I59372
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 N; Alternate names: Br-cadherin
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                                                                                                                                                                                                        A,Status: nucleic acid sequence not A,Molecule type: mRNA A,Residues: 1-794 <RES>
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                                                                                                                                                                A;Cross-references: GB:L33477; NID:g793942; PIDN:AAB48539.1; PID:g793943
C;Genetics:
                                                                                                                                          A; Gene: GDB: CDH12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ;Date: 21-Dec-1996 #sequence_revision 06-Jun-1997 #text_change;Accession: G02678
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54.5%;
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54.5%;
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Pred. No. 41;
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Pred. No. 41;
                                 adhesion; duplication; transmembrane protein homology <CR1>
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           A;LLUBB-relerences: GB:Z99119; GB:AL009126; NID:G2635411; PIDN:CAB15094.1; PID:g2635600
A;Experimental source: strain 168
                                                                                          A; Molecule type: DNA
                                                                                                         A; Status: preliminary; nucleic acid sequence not shown; translation
                                                                                                                                 A; Accession: D70006
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F;387-489/Domain: cadherin repeat homology <CR4>F;491-601/Domain: cadherin repeat homology <CR5>F;610-637/Domain: transmembrane #status predicted F;638-794/Domain: intracellular #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                          histidinol dehydrogenase (EC 1.1.1.23) [imported] - C;Species: Buchnera sp. C;Date: 02-Mar-2001 #sequence_revision 02-Mar-2001
                                                                                                                                   A;Gene: hisD; BU100
C;Superfamily: histidinol dehydrogenase; histidinol dehydrogenase homology
C;Keywords: oxidoreductase
                                                                                                                                                                                                                                                                                                     A; Accession: C84941
                                                                                                                                                                                                                                                                                                                    A,Title: Genome sequence of the endocellular bacterial symbiont of aphids Buchnera A;Reference number: A84930; MUID:20445173; PMID:10993077
                                                                                                                                                                                                                                                                                                                                                       Nature 407, 81-86, 2000
                                                                                                                                                                                                                                                                                                                                                                    R;Shigenobu, S.; Watanabe, H.; Hattori, M.; Sakaki, Y.; Ishikawa,
                                                                                                                                                                                                          A;Cross-references: GB:AP000398; GSPDB:GN00144
A;Experimental source: strain APS
                                                                                                                                                                                                                                                A; Molecule type: DNA
A; Residues: 1-435 <STO>
                                                                                                                                                                                                                                                                                                                                                                                             C;Accession: C8494
                                                                                                                                                                                                                                                                                A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ;272-384/Domain: cadherin repeat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local
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                                                                                    Local
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                                                                   Similarity 6; Conserv
                                 WNOMHIDEEK 13
WNKLHPDEQK 19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                     Conservative
                                                                                      46.7%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              47.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2;
                                                                       3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 44;
Pred. No.
                                                                                      Score 43;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    41;
                                                                                        31;
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Conserved hypothetical protein yubA - Bacillus subtilis
Conserved hypothetical yubA - Bacillus subtilis
Names of the Gram-positive bacterium Bacillus subtilis
Names in Tonnone hypothetical yubA - Bacillus subtilis
Names in Tonnone hypothetical yubA - Bacillus subtilis
Names in Tonnone hypothetical yubA - Bacillus subtilis
Names in Tonnone hypothetical yubanane yuba RESULT 15

not

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C;Genetics:
A;Gene: yubA
C;Superfamily: Bacillus subtilis conserved hypothetical protein yueF
Query Match
Best Local Similarity 60.0%; Pred. No. 32;
Matches 9; Conservative 1; Mismatches 4; Indels 1; Gaps 1;

Qy 1 DWINNQMHI-DEEKN 14
Db 366 DWFKMQSHLYDEEKN 380

Search completed: July 29, 2004, 11:37:50

Job time: 10.3333 secs
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